

OPERATING GUIDE AND WARRANTY



**ADVANCED
SYSTEM 3
COLOR TV**

**THE QUALITY GOES IN
BEFORE THE NAME GOES ON.®**

LOOK INSIDE...

**YOUR ZENITH
TV COULD BE**

FREE!



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN.



WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute the risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE.

NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Look for the Owner Registration Card on your new Zenith TV set. You could win a full refund on your TV.

Each month a drawing will be held by Zenith from the completed Owner's Registration cards received during the preceding month. Zenith will reimburse the winner for the full purchase price of the Color TV receiver. In order to participate simply complete and return the owner's registration card at once, even if you choose not to complete the information and interests portion of the questionnaire.* If the registration card is missing, use the replacement form entitled, "Registration Card Lost or Misplaced?" located at the back of this operating guide. Offer void for Hotel/Motel and Institutional models. Rental TV not eligible. See Owner Registration Card for full details.

* Offer void in Canada and other countries where restricted or prohibited by law.

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YOUR ZENITH WARRANTY Inside Back Cover

WELCOME

Welcome to the family of Zenith Color Television owners. This guide provides instructions on how to operate your new TV. It is supplemented by a booklet containing Safety Tips. We urge you to read these publications carefully so that you will receive full enjoyment from your new Zenith TV for many years to come.

Your new Zenith has been designed and built to give you the very best in quality, features and performance. There are approximately 75 regional Zenith distributors and many distributor-approved Zenith service centers throughout the U.S. and Canada who can attend promptly and effectively to ordinary service needs.

If you should have an unusual performance or service problem that cannot be satisfactorily resolved by your distributor-approved Zenith service center, contact the regional Zenith distributor in your area, or write to:

Zenith Electronics Corporation
Customer Service Department
11000 Seymour Avenue
Franklin Park, Illinois 60131

Send the model number, serial number, and date of purchase or original installation, with a full explanation of the problem and the service history. We will welcome the opportunity to look into your specific question or problem and to be of assistance in resolving it promptly.

The model and serial numbers of your new TV are located on the back of the TV cabinet. For your future convenience and protection, we suggest that you record these numbers here:

Model No. _____

Serial No. _____

INSTALLATION CONSIDERATIONS

Before you install your TV...



Ventilation — Proper ventilation keeps your TV running cool. Air circulates through perforations in the back and bottom of the cabinet. Do not block these vents or you will shorten the life of your TV.



Power Source — Your TV is designed to operate on normal household current, 120 volt 60 Hertz AC. Do not attempt to operate it on DC current.



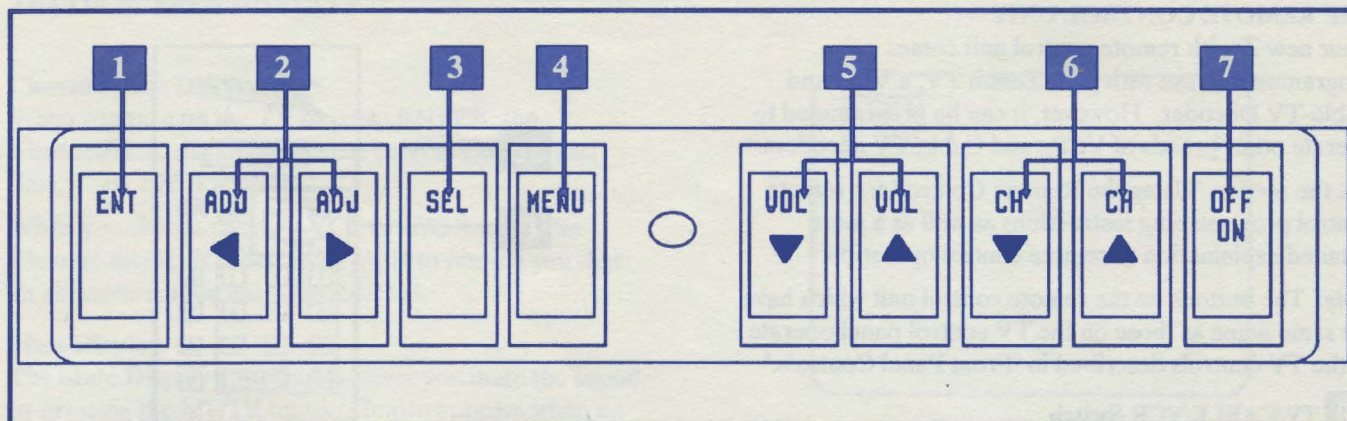
Power Cord — Your power cord has a polarized plug as required by Underwriters' Laboratories. It has one regular blade and one wide blade and fits only one way into a standard electrical outlet. If the blades will not enter either way, your outlet is very old and non-standard. A new outlet should be installed by a qualified electrician.



Safe Operation — Your TV is manufactured and tested with your safety in mind. However, unusual stress caused by dropping or mishandling, exposure to flood, fire, rain or moisture, or accidental spilling of liquids into the TV, can result in potential electrical shock or fire hazards. If this happens, have your TV checked by a service technician before using it again. Please read and observe each safety point in the "Safety Tips" folder when installing and using your TV.

FIXED PATTERN DISPLAY CAUTION — If you use your TV for video games, teletext or other fixed displays, avoid setting the PICTURE control for an excessively bright picture. A bright, fixed pattern, if used for long periods of time, can result in a permanent imprint on the TV picture tube. You can reduce this possibility by alternating the use of the fixed pattern display with normal TV picture control down for sustained fixed pattern use and by turning off the fixed pattern display when not in use.

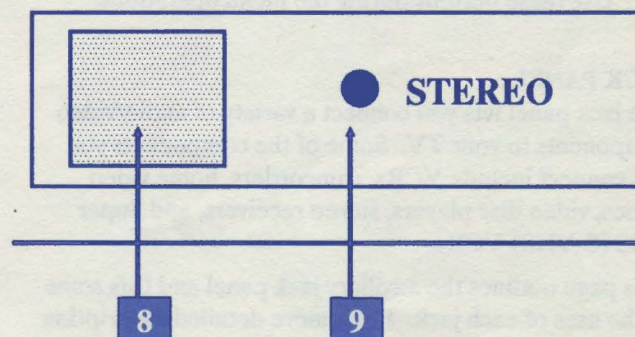
GETTING TO KNOW YOUR TV



FRONT PANEL CONTROLS

- 1 Enter Button**
Press to remove any on-screen menu or to see the Channel/Time display.
- 2 Adjust Buttons**
Press these buttons during on-screen menu operations to adjust the selected menu option.
- 3 Select Button**
Press during the on-screen menu operations to sequence through the menu options.
- 4 Menu Button**
Press once to call up the main menu pages. Press repeatedly to sequence through the menu pages.
- 5 Volume Up/Down**
Press and hold Volume UP or DOWN button to increase or decrease the sound level.
- 6 Channel Up/Down**
Press and hold Channel UP or DOWN to scan channels higher or lower than the channel being viewed. You can add or delete channels from the channel scan sequence. See "Programming Favorite Channels."

(Horizontal Control Panel is shown. Some models have vertical version.)



- 7 Off/On Button**
Press to turn TV power on or off.
- 8 Remote Control Detector Window**
Point the remote control hand unit towards this window to operate the TV.
- 9 Stereo Indicator**
The LED indicator lights when a stereo program is being received. "STEREO" lights when the TV is in the Stereo Sound mode.

GETTING TO KNOW YOUR TV (CONTINUED)

THE REMOTE CONTROL UNIT

Your new Zenith remote control unit comes programmed to use with your Zenith TV, a VCR and Cable-TV Decoder. However, it can be programmed to operate other brands of VCRs and Cable-TV decoders.

See the section "Using the Remote Control" for remote control programming instructions as well as a more detailed explanation of remote control operation.

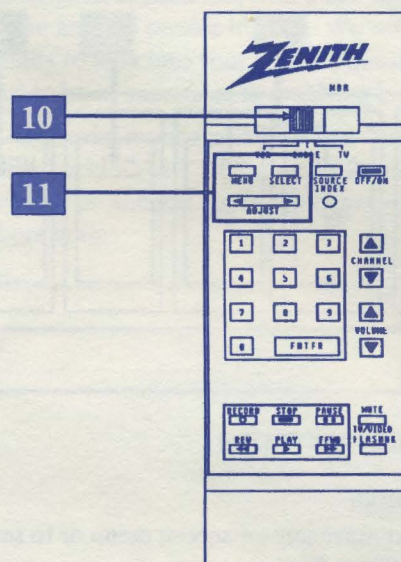
Note: The buttons on the remote control unit which have the same name as those on the TV control panel operate as the TV controls described in "Front Panel Controls."

10 TV/CABLE/VCR Switch

Set this switch to the "TV" position to operate your Zenith TV.

11 Menu Buttons

Use these buttons during the menu operations.



JACK PANEL

The jack panel lets you connect a variety of audio/video components to your TV. Some of the components you can connect include VCRs, camcorders, home video games, video disc players, stereo receivers, and Super VHS (S-VHS) VCRs.

This page outlines the auxiliary jack panel and lists some of the uses of each jack. For a more detailed description of the jack panel and its uses, see "Connections For Your TV" section of this operating guide.

12 75-OHM RF ANTENNA-TYPE CONNECTIONS

Attach your antenna or cable TV line to these jacks. The input cables may come from the outdoor or master antenna, cable TV line, cable decoder box or RF antenna output from a monaural VCR.

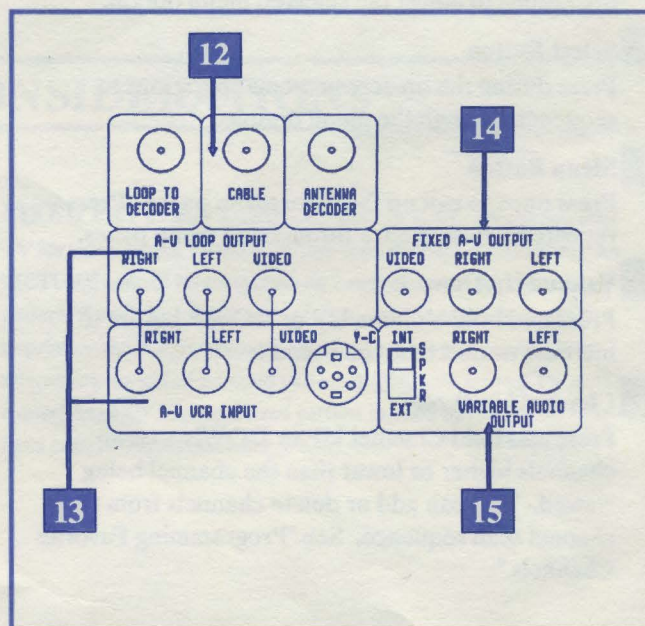
13 AUXILIARY A-V INPUT/LOOP

Use these jacks to receive audio/video signals from other components, such as a stereo VCR (both audio and video), a stereo receiver/amplifier (audio), a video disc player (audio and video) or other audio sources (audio).

Use the audio and video loop-out jacks to send the incoming audio and video signals to another component such as second VCR, a TV monitor or stereo receiver.

14 FIXED A-V OUTPUT

Use these jacks to send a fixed audio level and a fixed video level to another component, such as a VCR for recording purposes.



15 VARIABLE AUDIO OUT JACKS

Audio signals from the TV can be sent to external speakers or sound amplification equipment. With the SPKR switch in the "EXT" (external) position, the TV speakers are turned off. With the SPKR switch in the "INT" (internal) position, the TV speakers are turned on. In either case, use the TV remote control to adjust the volume level provided to the RIGHT and LEFT output jacks.

GETTING TO KNOW YOUR TV (CONTINUED)

THE ON-SCREEN DISPLAYS

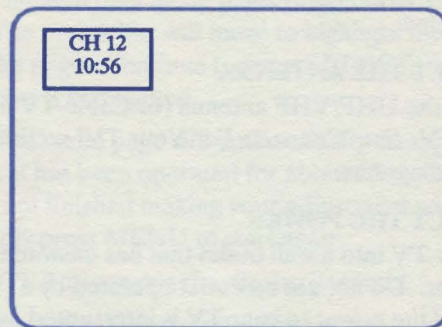
Channel/Time Display

When you turn on the TV or press ENTER, the Channel/Time display shows the current channel and time, if set. See "Clock Set."

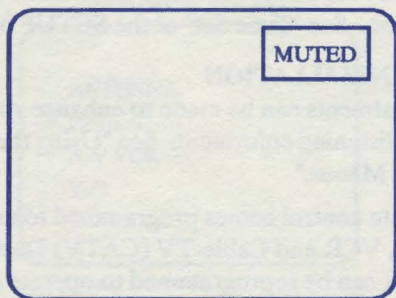
When you choose the A/V VCR or Y/C Source, the Channel display is replaced by VCR to remind you that an alternate source has been selected.

Mute Display

The Mute Display appears whenever you mute the sound by pressing the MUTE button. It also appears when no signal is detected.



Channel/Time Display



Mute Display

GETTING TO KNOW YOUR TV (CONTINUED)

BEFORE YOU OPERATE YOUR TV

Before operating your TV, you must follow the directions below.

1. CONNECT THE ANTENNA

Connect the UHF/VHF antenna (or Cable-TV line) to your TV. See "Connects For Your TV" section for detailed diagrams.

2. CONNECT THE POWER

Plug your TV into a wall outlet that has unswitched AC power. Do not use an outlet operated by a switch. If the power to your TV is interrupted, you may have to reset memory features such as the Time, and some Audio or Video adjustments to your preference.

NOTE:

Do not plug the TV into the switched AC outlets on VCRs or Cable Decoders. When you turn the VCR or Decoder off, the TV will also turn off.

3. TURN TV ON

Turn the TV on by pressing the ON/OFF button on the control panel or remote control.

4. FAMILIARIZE YOURSELF WITH THE MENU PAGES

Some adjustments that need to be made to operate your TV require use of the Menu pages. For this reason it is suggested that you take a moment to review the menus in this operating guide. In particular, see "Using the On-Screen Menus," "Source Menu," "Features Menu," and "Setup Menu."

5. FIND AVAILABLE CHANNELS

Use the AUTO (automatic) SEARCH feature of the SETUP MENU to find all available channels for the input sources connected to your TV. AUTO SEARCH should be activated for each source present. For example: If you have both an ANTENNA source and a CABLE source, select the ANTENNA source and activate AUTO SEARCH, then select the CABLE source and activate AUTO SEARCH again.

6. PROGRAM YOUR FAVORITE CHANNELS

(Optional Procedure) You can add or remove channels from the channel scan sequence. See "FAV (Favorite) Channels" of the SETUP MENU.

7. SET THE TIME

(Optional Procedure) Set the internal clock to the current time. See "Time Set" of the SETUP MENU.

NOTES ON INSTALLATION

- Other adjustments can be made to enhance your viewing or listening enjoyment. See "Using the On-Screen Menus."
- Your remote control comes programmed to use with a Zenith TV, VCR and Cable-TV (CATV) Decoder. However, it can be reprogrammed to operate other brands of VCRs and Decoders. For directions on programming your remote control, see "Using the Remote Control."

USING THE ON-SCREEN MENUS

INTRODUCTION

Your Zenith Digital TV is Menu Operated. That is, adjustments that can be made to the TV appear on the picture screen in a list, just as a menu in a restaurant lists available choices.

MAIN MENU

There are five Main Menus: SOURCE, VIDEO, AUDIO, FEATURES and SETUP. These menus list everything you can adjust using the on-screen displays.

Press the MENU button on your remote control or TV front panel to view the first menu. You will see a display like the one shown at the right.

With the first menu displayed, each time you press the MENU button, a different Menu will be shown.

To select an item on a menu page, press the SELECT button. The cursor bar will move to highlight the next item on the page. Continue to press SELECT until the desired item is highlighted.

NOTE: The menu page will automatically disappear if no control has been operated for about 15 seconds. If you have not finished making your adjustment within this time, simply press MENU to start again.

Press ENTER to remove the display instantly.

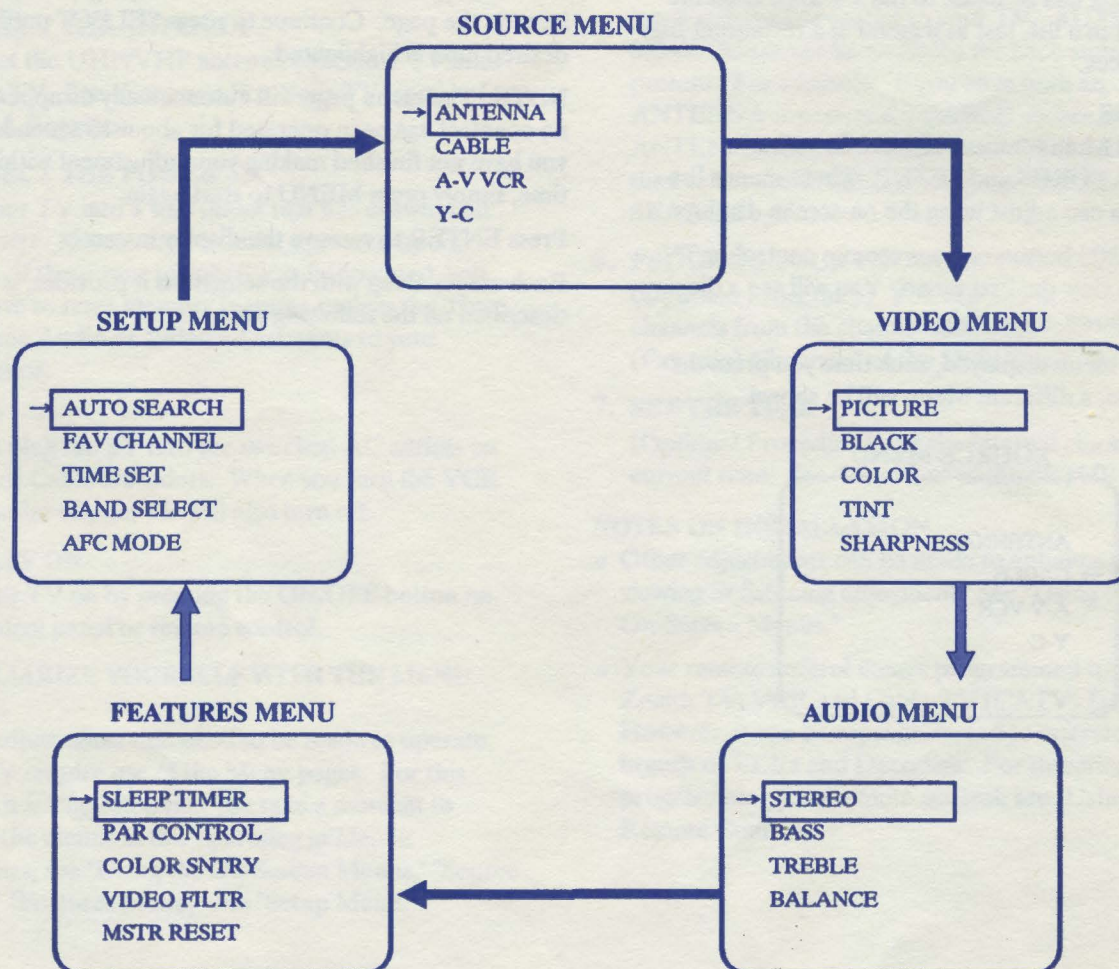
Each menu, along with the selections it provides, is described on the following pages.

SOURCE MENU

ANTENNA
→ CABLE
A-V VCR
Y-C

USING THE ON-SCREEN MENUS

MAIN MENU STRUCTURE



QUICK ACCESS INSTRUCTIONS

TO SEE A MENU OR CHANGE A MENU: Press MENU button repeatedly until the desired menu is shown.

TO SELECT AN OPTION/FEATURE ON A MENU: Press SELECT button repeatedly until the desired option/feature is highlighted.

TO ADJUST AN OPTION/FEATURE ON A MENU: Press ADJUST to see submenu. Press ADJUST Up or Down to adjust the option/feature.

TO RETURN TO NORMAL VIEWING: Press ENTER button.

SOURCE MENU

SOURCES

A TV "source" refers to whatever is supplying the TV with a picture and/or sound. The most common signal source is your outdoor antenna or Cable-TV system. When you watch a tape on your VCR, the VCR becomes the signal source.

You can connect more than one signal source to your Zenith TV at the same time. Hook up an outdoor antenna, a Cable-TV system, a VCR or another source like a video disc player or other audio/video component. Choose the source you want to watch by using the remote control and the Source Menu.

The Source Menu graphically represents which of the sources connected to your TV is currently being used.

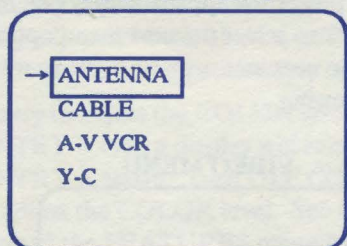
To Select A Source:

1. Press MENU until the SOURCE menu is displayed.

Note: The quick way is to press the SOURCE button on the remote control.

2. With the SOURCE menu displayed, press and release SELECT until the desired source is highlighted.

SOURCE MENU



SOURCE SELECTIONS

The actual source selected depends on how the TV is connected. Selecting ANTENNA will direct to the TV whatever signal source is connected to the ANTENNA port of the Jack Pack on the back of the TV (usually the outdoor antenna). Selecting CABLE will direct the signal source supplied to the CABLE port of the Jack Pack (usually the Cable-TV line). Selecting VCR will access the A-V VCR INPUT port of the Jack Pack (usually the VCR). The Y/C selection will display the signal source entering the TV through the Y/C connection at the back of the TV (usually used for a Super-VHS (S-VHS) VCR).

For more detailed information, see the "Connections For Your TV" section of this Operating Guide.

VIDEO MENU

NOTE: All adjustments from the Video Menu are optional.

PICTURE

Adjusts the overall contrast and color level of the picture.

When making picture adjustments, use a video input source that you know provides a good color picture. Let the TV operate for a few minutes to stabilize the picture before changing any adjustment.

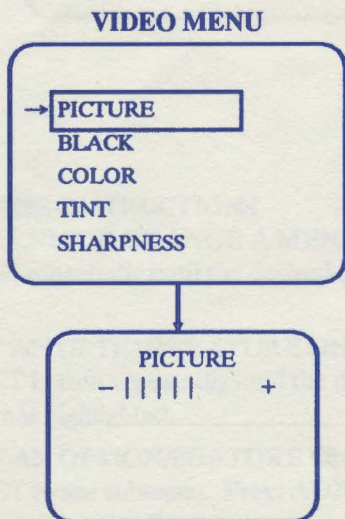
To Adjust the PICTURE:

1. Press MENU until the VIDEO menu is displayed.
2. Press SELECT until the PICTURE option is highlighted.
3. Press ADJUST UP or DOWN to get the PICTURE status display.
4. If the picture is grayish and lacks contrast and sparkle, press ADJUST UP until you reach the contrast level you prefer.

If the light areas in the picture are overly bright and some of the highlight details are missing, press ADJUST DOWN until the highlights are restored.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one minute.

5. Press SELECT to select the next menu option, MENU for the next menu, or ENTER to return to normal TV viewing.



BLACK

Adjusts the brightness of the black areas in the picture.

When making picture adjustments, use an input source that you know provides a good color picture. Let the TV operate for a few minutes to stabilize the picture before changing any adjustment.

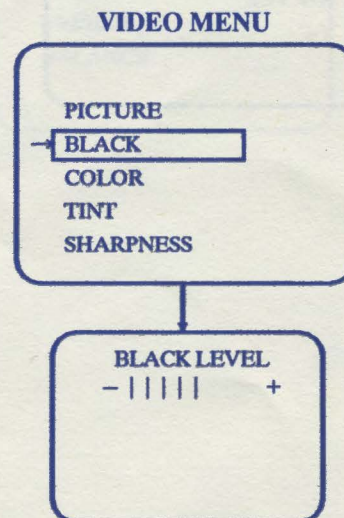
To Adjust the BLACK Level:

1. Press MENU until the Video page is displayed.
2. Press SELECT until the BLACK option is highlighted.
3. Press ADJUST UP or DOWN to get the BLACK LEVEL status display.
4. If the black areas in the picture are too dark and show little detail, press ADJUST UP until you reach the black level you prefer.

If the black areas are too light, press ADJUST Down until you reach the black level you prefer.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one minute.

5. Press SELECT to select the next menu option, MENU for the next menu, or ENTER to return to normal TV viewing.



VIDEO MENU (CONTINUED)

COLOR

Adjusts the intensity of the colors in the picture.

When making picture adjustments, use a video input source that you know provides a good color picture. Let the TV operate for a few minutes to stabilize the picture before changing any adjustment.

To Adjust the COLOR level:

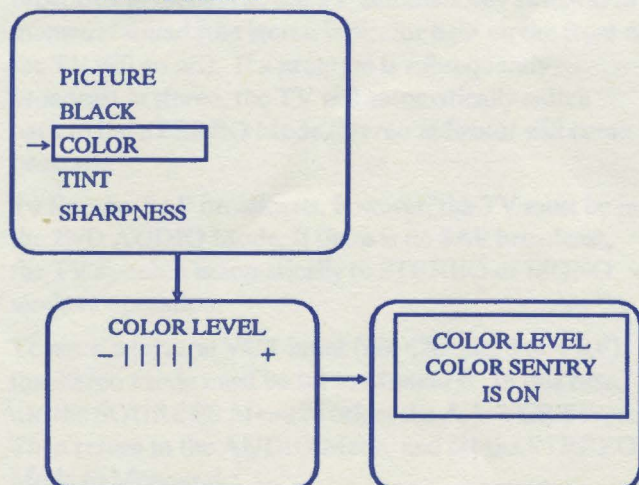
1. Press MENU until the VIDEO menu is displayed.
2. Press SELECT until the COLOR option is highlighted.
3. Press ADJUST UP or DOWN to get the COLOR LEVEL display.
4. If all the colors seem faded or washed out, press ADJUST Up to increase the color intensity.
5. Press SELECT to select the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

If all the colors seem too vivid or intense, press ADJUST Down to decrease the color intensity.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one minute.

NOTE: If you try to adjust the COLOR level while COLOR SENTRY is ON, a display will remind you that COLOR SENTRY is active. Turn OFF COLOR SENTRY to adjust the COLOR level. See the COLOR SENTRY option of the FEATURES menu for details.

VIDEO MENU



TINT

Adjusts the color of the flesh tones.

When making picture adjustments, use a video input source that you know provides a good color picture. Let the monitor operate for a few minutes to stabilize the picture before changing any adjustment.

To Adjust the TINT:

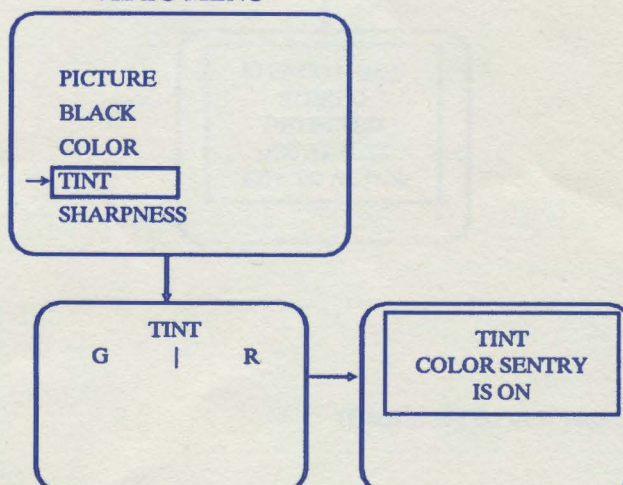
1. Press MENU until the VIDEO Menu is displayed.
2. Press SELECT until the TINT option is highlighted.
3. Press ADJUST UP or DOWN to get the TINT display.
4. If the flesh tones are green or have a greenish TINT, press ADJUST UP until you reach the desired flesh tones. The cursor should move toward the R (Red) side of the display.
5. Press SELECT for the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

If the flesh tones are too red or purple, press ADJUST Down until you reach the desired flesh tones. The cursor should move toward the G (Green) side of the display.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one minute.

NOTE: If you try to adjust the TINT while COLOR SENTRY is ON, a display will remind you that COLOR SENTRY is active. Turn OFF COLOR SENTRY to adjust TINT.

VIDEO MENU



VIDEO MENU (CONTINUED)

SHARPNESS

Adjusts the SHARPNESS of the picture.

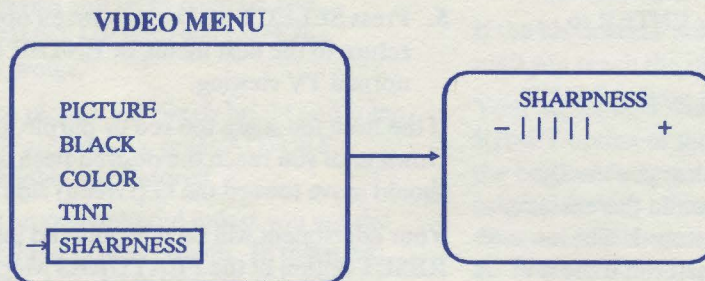
When making picture adjustments, use a video input source that you know provides a good color picture. Let the monitor operate for a few minutes to stabilize the picture before changing any adjustment.

To Adjust the SHARPNESS:

1. Press MENU until the VIDEO Menu is displayed.
2. Press SELECT until the SHARPNESS option is highlighted.
3. Press ADJUST UP or DOWN to get the SHARPNESS status display.
4. If lines that define the edges of objects and people are fuzzy, press ADJUST UP to increase the SHARPNESS.

5. Press SELECT for the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one minute.



AUDIO MENU

STEREO

Your TV is equipped to receive Multi-channel Television Sound (MTS) when available in your area. It can also receive a Second Audio Program (SAP), that is, a program broadcast with two audio portions (such as two languages). The following modes of operation are available.

Enhanced

Electronically changes the audio separation between the speakers so that you hear an "enhanced," more spacious stereo sound effect. Enhanced Stereo is available when a Stereo broadcast is being received or from auxiliary stereo inputs.

Stereo

Directs the sound into the left and right speakers as supplied by the program source (broadcast TV station, VCR, etc.)

Monaural (MONO)

Directs the same sound to both left and right speakers. With the Monaural Mode selected, the same sound will be directed to both speakers even if the source being received is in stereo.

Second Audio Program (SAP or 2nd AUDIO)

Directs the sound for the Second Audio Program (typically a second language) to both the left and right speakers. SAP sound is always monaural.

NOTE: Your TV has an automatic stereo sound mode selection feature. This feature can be used instead of the manual sound mode selection described below. For automatic sound mode selection, keep the TV in the STEREO Mode at all times. If a program is being broadcast in monaural, the TV automatically switches to monaural sound (the stereo indicator light on the front of the TV will go off). If a program is subsequently broadcast in stereo, the TV will automatically switch back to the STEREO Mode (Stereo indicator will come back on).

To Receive SAP broadcasts, however, the TV must be in the 2ND AUDIO Mode. If there is no SAP broadcast, the TV switches automatically to STEREO or MONO mode of operation.

To use a monaural VCR input (not Channel 3 or 4 RF), the Stereo Mode must be set to Monaural. In this case, use the SOURCES Menu to select the A-V VCR Source. Then return to the AUDIO Menu, and set the STEREO Mode to Monaural.

To Adjust the STEREO Mode

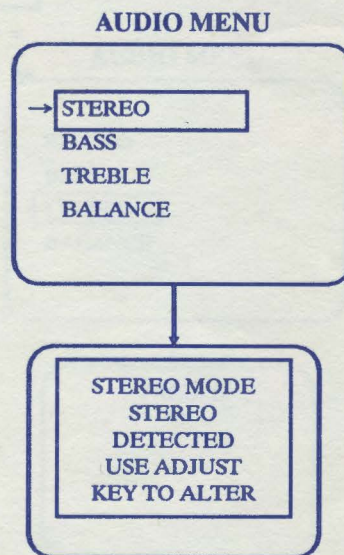
1. Press MENU until the AUDIO Menu is displayed.
2. Press SELECT until the STEREO option is highlighted.
3. Press ADJUST UP or DOWN to get the STEREO MODE status display.

Note the display. It will indicate whether the mode selected is available or not.

4. To change the mode, press the ADJUST control until your choice appears on the display. The display will indicate the availability of each selection.
5. Press SELECT for the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

NOTES:

1. Under certain signal conditions, the STEREO indicator light on the front of the TV may falsely indicate that stereo sound is being broadcast.
2. Weak signal conditions may create poor quality stereo reception. Switching to the MONO Mode may improve the sound.



(Continued on next page...)

AUDIO MENU (CONTINUED)

STEREO

The operation of the automatic stereo mode under varying broadcast conditions and STEREO MODE settings is summarized in the table at the right:

Automatic Selection of Stereo Mode			
Sound Mode of Received Signal Source:	Stereo Mode Set To:	Sound Mode Provided To Speakers:	Stereo Light:
Stereo	<ul style="list-style-type: none"> • Enhanced Stereo • Stereo • 2nd Audio • Monaural 	<ul style="list-style-type: none"> • Enhanced Stereo* • Stereo* • Stereo* • Monaural 	<ul style="list-style-type: none"> • ON • ON • ON • OFF
Stereo and 2nd Audio	<ul style="list-style-type: none"> • Enhanced Stereo • Stereo • 2nd Audio • Monaural 	<ul style="list-style-type: none"> • Enhanced Stereo* • Stereo* • 2nd Audio** • Monaural 	<ul style="list-style-type: none"> • ON • ON • ON • OFF
Monaural and 2nd Audio	<ul style="list-style-type: none"> • Enhanced Stereo • Stereo • 2nd Audio • Monaural 	<ul style="list-style-type: none"> • Monaural • Monaural • 2nd Audio** • Monaural 	<ul style="list-style-type: none"> • OFF • OFF • OFF • OFF
Monaural	<ul style="list-style-type: none"> • Enhanced Stereo • Stereo • 2nd Audio • Monaural 	<ul style="list-style-type: none"> • Monaural • Monaural • Monaural • Monaural 	<ul style="list-style-type: none"> • OFF • OFF • OFF • OFF

* The Stereo Indicator Lights When Receiving A Stereo signal source.

** If channels in your area broadcast a Second Audio Program (SAP), you can also choose to leave the Stereo Mode Selector in the 2ND AUDIO position. When the 2nd Audio Programming ends, the TV will automatically switch to STEREO (if available) or MONO. It will switch back to 2ND AUDIO when the SAP programming resumes.

AUDIO MENU (CONTINUED)

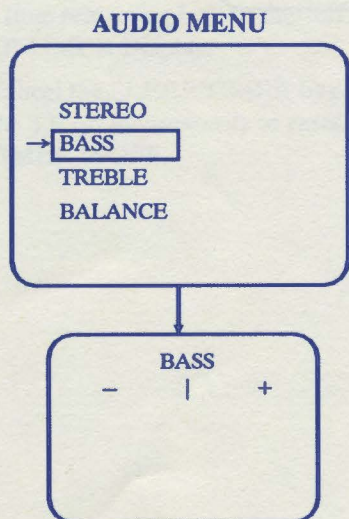
BASS

Lets you adjust the BASS (low frequency) level.

To Adjust the BASS:

1. Press MENU until the AUDIO Menu is displayed.
2. Press SELECT until the BASS option is highlighted.
3. Press ADJUST UP or DOWN to get the BASS status display.
4. Use the ADJUST control to adjust the amount of BASS in the sound. To increase (+) BASS, press ADJUST Up. To decrease (-) BASS, press ADJUST Down.
5. Press SELECT to select the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one hour.



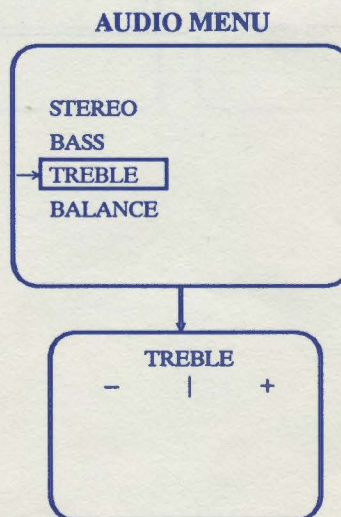
TREBLE

Lets you adjust the TREBLE (high frequency) level.

To Adjust the TREBLE:

1. Press MENU until the AUDIO Menu is displayed.
2. Press SELECT until the TREBLE option is highlighted.
3. Press ADJUST UP or DOWN to get the BASS status display.
4. Use the ADJUST control to adjust the amount of TREBLE in the sound. To increase (+) TREBLE, press ADJUST Up. To decrease (-) TREBLE, press ADJUST Down.
5. Press SELECT to select the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one hour.



AUDIO MENU (CONTINUED)

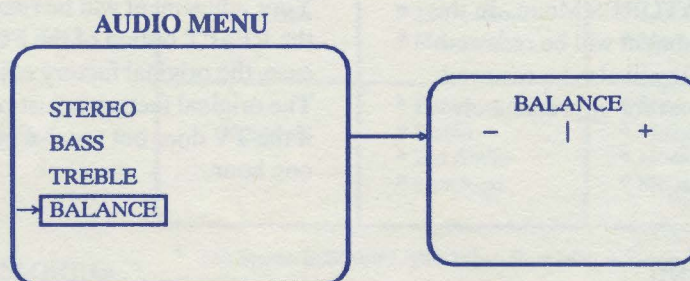
BALANCE

Allows you to adjust the BALANCE of sound between the left and right speakers.

To Adjust the BALANCE:

1. Press MENU until the AUDIO Menu is displayed.
2. Press SELECT until the BALANCE option is highlighted.
3. Press ADJUST UP or DOWN to get the BALANCE status display.
4. Use the ADJUST control to shift the BALANCE between the left and right speakers as indicated by the on-screen display. To increase the sound level in the Right (R) speaker, press ADJUST Up. To increase the sound level in the Left (L) speaker, press ADJUST Down.
5. Press SELECT for the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one hour.



FEATURES MENU

SLEEP TIMER

You can program the TV to automatically shut off after an elapsed time of 15 minutes to 4 hours.

To Program the SLEEP TIMER:

1. Press MENU until the FEATURES Menu is displayed.
2. Press SELECT until the SLEEP TIMER option is highlighted.
3. Press ADJUST UP or DOWN to get the SLEEP TIMER status display.
4. Press the ADJUST Left or Right controls to display the amount of time that will pass before the TV shuts itself off. You can choose:

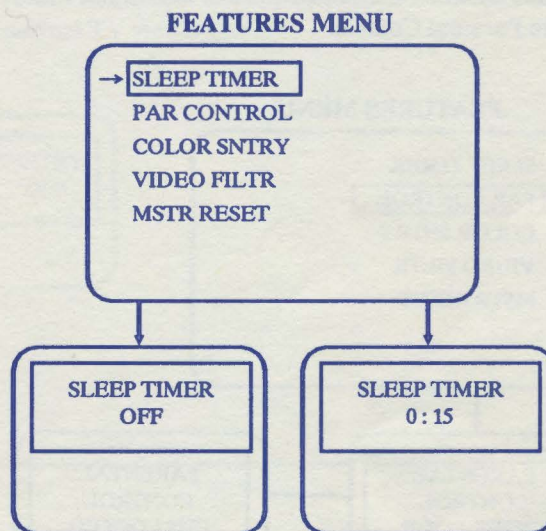
0:15 (minutes)	2:30 (2 hours, 30 minutes)
0:30 (minutes)	3:00 (3 hours)
1:00 (1 hour)	3:30 (3 hours, 30 minutes)
1:30 (1 hour, 30 minutes)	4:00 (4 hours)
2:00 (2 hours)	OFF (cancels function)
5. Once you have selected the time setting, let the SLEEP TIMER display disappear from your screen or press ENTER to remove it instantly.
6. Once the SLEEP TIMER has been set, you can check the time remaining before shut-off by recalling the SLEEP TIMER Display.
7. You can cancel the SLEEP TIMER by either shutting the TV off momentarily or resetting the SLEEP TIMER to OFF.

Automatic Shut-Off

One minute before the TV shuts off, the SLEEP TIMER Menu display will appear on the screen. At this time you have a choice of three actions:

1. Do nothing. The TV will shut off in one minute.
2. Remove the SLEEP TIMER Display by pressing ENTER. The TV will still shut off in one minute.
3. Delay the shut off by using the ADJUST controls to choose a new time setting.

The SLEEP TIMER Display will replace any other on-screen displays active at the one minute warning.



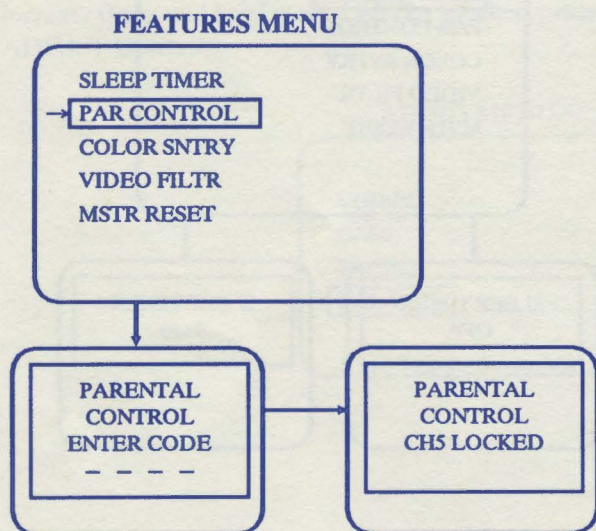
FEATURES MENU (CONTINUED)

PAR (Parental) CONTROL

If there is a channel that you do not want your children to watch, you can "lock it out" for up to 12 hours by entering your own (secret) 4-digit code. The locked out channel can be any channel accessed through the ANTENNA or CABLE sources.

NOTE: Parental Control can be used to lock out only one channel. Before Parental Control can be activated, the ANTENNA or CABLE source must first be selected. See the SOURCES Menu for details.

Once you have locked out a channel, the TV will not be able to tune it for the next 12 hours unless you deactivate Parental Control.



Activating Parental Control:

1. Press MENU until the FEATURES Menu is displayed.
2. Press SELECT until the PAR CNTRL option is highlighted.
3. Press ADJUST UP or DOWN to get the PAR CONTROL status display.
4. Choose the channel you want to lock out by using the Channel Up/Down buttons, or enter the channel number directly by using the remote control.
5. Enter a 4-digit code using the numbered buttons on the remote control. The numbers you enter will replace the dashes in the display. Pick a number that is easy to remember (or write it down) in case you want to reactivate the channel within 12 hours.
6. Press ENTER to activate Parental Control.
7. Change to another channel or turn off the TV. For the next 12 hours, whenever anyone tries to select the locked-out channel, the TV will ignore the selection.

Deactivating Parental Control:

A channel that has been locked out can be made accessible again by following the below steps:

1. Use the MENU and SELECT buttons to display the PAR CNTRL Menu.
2. Use the Numbered Buttons to enter the 4-digit code used to lock out the channel, then press ENTER.
3. If you have entered the code used to lock the channel out, the Channel/Time display will replace the Parental Control Menu. You can now tune in the channel that had been locked out.

FEATURES MENU (CONTINUED)

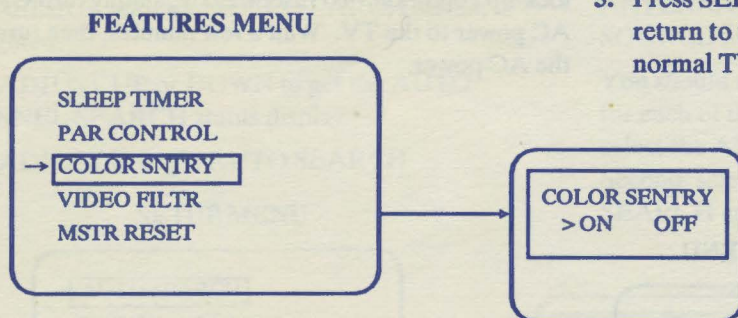
COLOR SNTRY (Sentry)

Video COLOR SNTRY allows you to switch to the factory settings for the COLOR level and picture TINT characteristics.

The COLOR SNTRY feature produces an excellent TV picture. Still, there may be times (like when watching lesser quality VCR tapes) when you want more control over the picture. In that case, switch the COLOR SNTRY to off. With Color Preset off, you can adjust two additional controls, COLOR and picture TINT.

To Operate Color Sentry:

1. Press MENU until the Features menu is displayed.
2. Press SELECT until the VIDEO SNTRY option is highlighted.
3. Press ADJUST UP or DOWN to get the COLOR SENTRY status display.
4. To turn COLOR SENTRY ON, press ADJUST UP or DOWN until the display shows ON.
To turn COLOR SENTRY OFF, press ADJUST UP or DOWN until the display shows OFF.
5. Press SELECT for the next menu option, MENU to return to the next menu page, or ENTER to return to normal TV viewing.



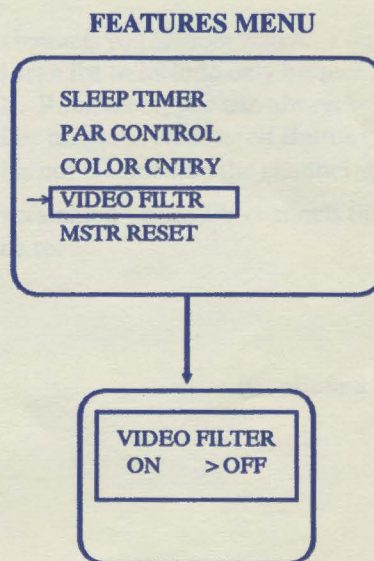
VIDEO FILTR (Filter)

The VIDEO FILTR reduces video "noise" or interference in dark picture areas while retaining detail and sharpness in bright areas.

To Operate the VIDEO FILTR:

1. Press MENU until the Video page is displayed.
2. Press SELECT until the VIDEO FILTR option is highlighted.
3. Press ADJUST UP or DOWN to get the VIDEO FILTER status display.
4. To turn the VIDEO FILTER off, press ADJUST Up or Down until the word "OFF" is highlighted in the display.
To turn the VIDEO FILTER on, press ADJUST Up or Down until the word "ON" is highlighted in the display.
5. Press SELECT to select the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

NOTE: You may prefer to have the VIDEO FILTER switched OFF for better sharpness.



FEATURES MENU (CONTINUED)

MSTR (Master) RESET

Your picture adjustments will be "remembered" until you readjust them, activate MSTR RESET, or if the power to the TV has been interrupted for an extended period (usually over 1 hour). If you activate MSTR RESET, the picture controls return to their original factory settings. You may want to activate MSTR RESET if your adjustments are accidentally changed. The following adjustments are reset:

Video Features

PICTURE

BLACK

COLOR

TINT

SHARPNESS

Audio Features

STEREO

BASS

TREBLE

BALANCE

To Use MSTR RESET:

1. Press MENU until the FEATURES Menu is displayed.
2. Press SELECT until MSTR RESET is highlighted.
3. Press ADJUST UP or DOWN to get the MASTER RESET status display.
4. Press ENTER to reset your TV.

NOTE: If your TV fails to respond to the MSTR RESET Selection, or to any other menu selection, the microprocessor that controls the TV is probably in a lock-up condition. To reset the TV, simply turn OFF the AC power to the TV. Wait a few minutes, then turn ON the AC power.

FEATURES MENU

SLEEP TIMER
PAR CONTROL
COLOR SNTRY
VIDEO FILTR
→ MSTR RESET

MASTER RESET
USE ADJUST
KEY TO
ACTIVATE

SETUP MENU

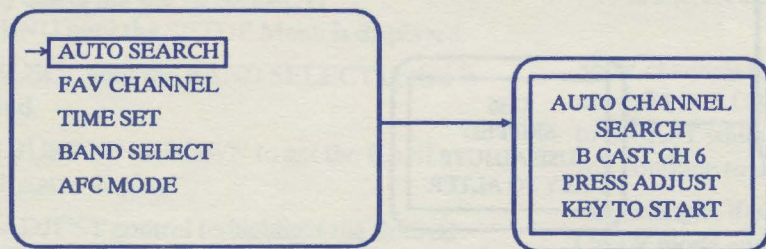
AUTO (Automatic) SEARCH

The list of channels that will be displayed when you operate the CHANNEL Up/Down controls was programmed in at the factory. This list may include channels not available in your area, or exclude channels that are. The Auto Search feature will find all available channels and store them in memory for access by the CHANNEL Up/Down control. It will delete invalid or "empty" channels.

To Use AUTO SEARCH:

1. Press MENU until the SETUP page is displayed.
2. Press SELECT until the AUTO SEARCH system is highlighted.
3. Press ADJUST UP or DOWN to get the AUTO CHANNEL SEARCH status display.
4. Press ADJUST to begin AUTO SEARCH.

SETUP MENU



IMPORTANT: Before beginning Auto Search, your Cable-TV Decoder should be turned ON. All other accessories, such as a VCR, should be shut OFF.

After about one minute, the results of the AUTO SEARCH are displayed. Once your installation is complete, press any button on the remote control to end the setup session.

The list of channels that is now stored for access by the CHANNEL Up/Down controls can be customized. See the Favorite Channel feature on the SETUP menu page.

NOTE: AUTO SEARCH will only operate when the ANTENNA or CABLE source is selected. See the SOURCE Menu for details.

You should use AUTO SEARCH to find active channels for each of the RF sources connected to your TV. First, select the ANTENNA source and use AUTO SEARCH. Second, select the CABLE source and use AUTO SEARCH again.

FAV. (Favorite) CHANNEL

Auto Search on the SETUP Menu will detect all the active channels available in your area. It stores them in a "channel scan list." This is the list of channels that the TV will recall (in numeric order) when the CHANNEL Up or Down controls are operated.

The FAV. (Favorite) CHANNEL feature allows you to customize this list of active channels to:

- Delete weak or "marginal" channels. Some channels may be strong enough to be detected by Auto Search but deliver poor picture quality.
- Store weak or "marginal" channels. Some channels may be too weak to be detected by Auto Search but strong enough to deliver a picture satisfactory to you.
- Save channels that may not have been broadcasting when you used the Auto Search feature. Some channels in your area (especially Public Television and some Cable-TV stations) may not broadcast 24 hours a day.

- Delete channels you seldom watch. You may want the channel scan list to include only frequently watched channels. Remember, you can always select any valid channel by using the Numbered Buttons, even if that channel is not included on the channel scan list.
- Delete scrambled Cable-TV channels that you do not subscribe to.

(Continued on next page...)

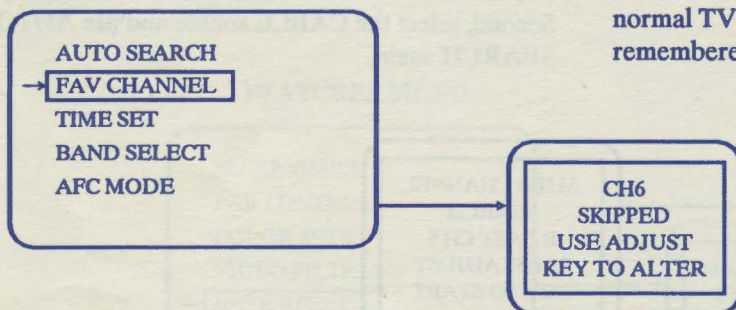
SETUP MENU (CONTINUED)

NOTE: Favorite Channel will only operate when the ANTENNA or CABLE source is selected. See the SOURCE Menu for details.

To operate the Favorite Channel feature:

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the FAV. CHANNEL option is highlighted.
3. Press ADJUST UP or DOWN to get the FAV CHANNEL status display.
4. Choose a channel by using the Numbered Buttons or the CH up or down control. The channel number will appear on the menu display.

SETUP MENU



NOTE: Check the setting of the BAND SELECT if you have difficulty turning some channels (See BAND SELECT on the SETUP Menu). If you have the correct BAND selection but are still having difficulty finding a channel you know to be active, set the AFC MODE to SEARCH. See AFC MODE on the SETUP Menu.

5. To save the displayed channel, use the ADJUST button to highlight SAVE. Repeat steps 3 and 4 for each channel you wish to save.
6. To delete the displayed channel from the scan list use the ADJUST control to highlight SKIP. Repeat steps 3 and 5 for each channel you wish to skip over when operating the CHANNEL UP/DOWN control.
7. Press SELECT for the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing. Your favorite channels will be remembered even if power to the TV is disconnected.

TIME SET

Sets the built-in clock to the current time.

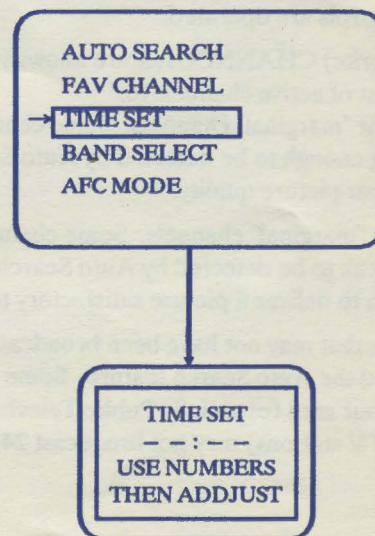
The current time will appear on the Channel/Time display whenever the TV is turned on, the channel is changed or the ENTER button is pressed. To set the time:

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the TIME SET option is highlighted.
3. Press ADJUST UP or DOWN to get the TIME SET status display.
4. Use the Numbered Buttons on the Remote Control to enter the current time. For example, to set the time to 6:30, press 6, then 3, then 0. If you enter an invalid time like 13:45, the clock will continue to show the last valid time that was set.

If you enter a wrong number, you can re-enter the correct time by pressing the numbered buttons again.

5. To start the clock, press ENTER. The TIME SET display will be replaced by the Channel/Time display.

SETUP MENU



SETUP MENU (CONTINUED)

BAND SELECT

The BAND SELECT determines the range and operation of the electronic tuner inside the TV. If you ran the AUTO SEARCH feature (on the SETUP Menu), the tuning band was automatically set for your TV.

If you did not use AUTO SEARCH, the BAND SELECT must be set to match your viewing needs, or you may not get a TV picture. There are four bands:

- B-CAST (BROADCAST) - for standard over-the-air broadcasts.
- CATV - for most standard Cable-TV (CATV) systems.
- HRC - for CATV systems that use HRC (Harmonically-Related Carrier).
- ICC - for CATV systems using ICC (Incremental-Coherent Carrier).

To Manually Select the BAND SELECT:

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the BAND SELECT option is highlighted.
3. Press ADJUST UP or DOWN to get the BAND SELECT status display.
4. Use the ADJUST control to highlight the desired Band (B CAST, CATV HRC or ICC).
5. Press SELECT to select the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

NOTE: If necessary, adjust the AFC MODE for the band selected. See the AFC MODE Option for details.

Available Channels Per Band

The channels that are available in the Broadcast and Cable Tuning Bands are shown below.

B'CAST Band

VHF 2 to 13

UHF 14-69*

Channel Display: 2 to 83

All channels other than 2-83 are invalid and the TV will ignore their selection.

CATV, HRC and ICC Bands

0, 00, 1-13

14 to 120**

Channel Display: 0, 00, 1-134

All channels above 134 are invalid and the TV will ignore their selection.

* In U.S., 14 to 83 with optional tuner modification.

** In U.S., 134 with optional tuner modification.

Some channels that are valid in CATV, HRC or ICC are not valid in B CAST. If you change the BAND SELECT to B CAST while tuned to one of these stations, the TV will continue to display the channel in the old band.

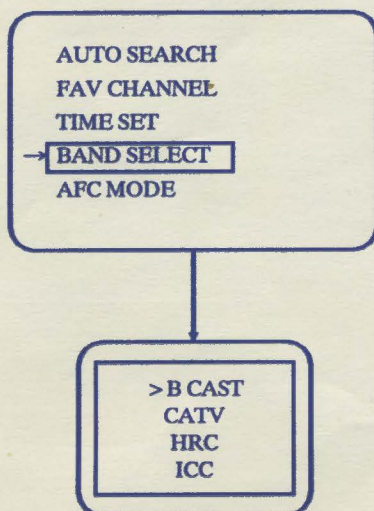
For example, if you are tuned to channel 110 in the CATV mode and change the Band to B CAST, the TV will still display channel 110 in the CATV mode (CH 110 is invalid in B CAST). The TV will, however, remember you have changed the band and will tune to channels in the new band when you select a valid channel in the new band.

NOTE: The BAND SELECT selection can only be changed when the ANTENNA or CABLE source is selected. See the SOURCE Menu for details.

Recommendations

- Simply use the AUTO SEARCH feature. After AUTO SEARCH has run, you should not have to manually set the BAND SELECT.
- After setting the BAND SELECT, verify that the proper AFC MODE is selected. See the AFC MODE Option in this section of the operating guide for details.

SETUP MENU



SETUP MENU (CONTINUED)

AFC MODE

The AFC (Automatic Frequency Control) circuit lets your TV compensate for variations in broadcast frequencies. The AFC has two basic functions:

- it tunes to the exact broadcast signal.
- once tuned to the broadcast signal, it "locks" onto it and, if need be, follows the signal should it drift.

The AFC MODE contains two options, ON and OFF. Use the ON Mode to receive over-the-air TV stations. You can also use the ON Mode with many Cable-TV (CATV) channels.

NOTE: Before setting the AFC Mode to ON, use a video source that you know provides a good color picture. Let the TV operate for a few minutes to stabilize the picture before changing any adjustment.

NOTE: The AFC MODE can only be changed when the ANTENNA or CABLE source is selected. See the SOURCE Menu for details.

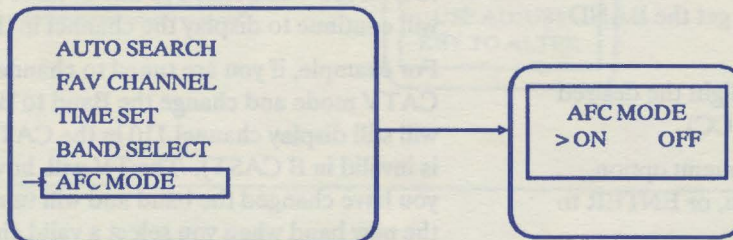
To Use AFC:

The AFC can be set for a particular band by following the below directions.

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the AFC MODE option is highlighted.
3. Press ADJUST UP or DOWN to get the AFC MODE status display.
4. Use the ADJUST control to select the desired AFC mode.
5. Press SELECT for the next menu option, MENU to return to the next menu, or ENTER to return to normal TV viewing.

NOTE: The AFC MODE can be different for each source connected to your TV.

SETUP MENU



USING THE REMOTE CONTROL

INTRODUCTION

The MBR3000 Remote Control supplied with your new television allows you to operate most models of remote-controlled TVs, VCRs and Cable TV Decoders even if they are all of different brands. In this way, it takes the place of the several remote controls previously needed.

Before use, the MBR3000 must be "told" which brands of TV, VCR and Cable TV Decoder it will be used to operate. If you will be using your new television with a Zenith Cable-TV Decoder and/or Zenith VHS VCR, it has already been programmed for you. In any case, programming is so simple that it is summarized on a label that can be affixed to the back of the remote control.

For more detailed instructions, see Programming the Remote Control.

It is also important to note the following:

- For optimum performance, point the MBR3000 at the component it is being used to operate.
- The MBR3000 may have functions not available on the original remote control. These functions may or may not operate your VCR or Cable-TV Decoder. Refer to the owner's manuals supplied with these units to see which functions are available.
- The remote control supplied with your VCR or Cable-TV Decoder may have keys not duplicated on the MBR3000. If these functions are desired, the original remote control will have to be used.

- Some controls on the MBR3000 may be labeled differently than those on the original remote control. A few examples are shown below.

Original Remote

MBR3000 Label

Recall:

ENTER

Power:

OFF-ON

A/CH or Last Channel

FLASHBACK

- Subscribers to Cable-TV most often use their Cable-TV Decoder to select channels. If your television is connected to a Cable-TV system, channel selection will be easiest when the VCR/CABLE/TV switch is left in the CABLE position.
- If your Cable-TV Decoder has a volume control, adjust it for maximum loudness. Then the volume control setting of the TV can be used to adjust the actual loudness or softness.
- Some controls on the MBR3000, such as PLAY and VOLUME, will always operate the VCR or TV. Whether other controls will operate the VCR, Cable-TV Decoder or TV depends on the position of the VCR/CABLE/TV switch located at the top of the MBR3000.

For example, the OFF-ON button will turn on and off the VCR while the VCR/CABLE/TV switch is in the VCR position. It will turn on or off the TV when the VCR/CABLE/TV switch is in the TV position.

Directions for each mode of operation are given on the following pages.

USING THE REMOTE CONTROL (CONTINUED)

OPERATING YOUR ZENITH TV

1 VCR/CABLE/TV

To operate your TV, place this switch in the TV position.

2 SOURCE

Press to display the menu of audio/video sources. Press again to step through the source selections.

3 OFF/ON

Press to turn On or OFF the TV.

4 CHANNEL

Used to sequence through channels.

5 VOLUME

Used to increase or decrease the volume of the television.

6 MUTE

Press to turn sound off while the picture remains. Press again to turn the sound back on.

7 FLASHBK (Flashback)

Press to switch back to the last television channel you were watching.

8 ENTER

Press after a channel number is entered with the Numbered Buttons to change channels instantly. Press without a channel number to view the Channel/Time display. You can also press ENTER to instantly remove the on-screen displays.

9 Numbered Buttons

Used to select channels or menus. When channels (or menus) are selected without use of the ENTER button, the TV will automatically change to the selected channel (or menu) in about 2 seconds. NOTE: If you are entering 2 or 3 digit information, press the Numbered Buttons within two seconds of each other.

10 ADJUST

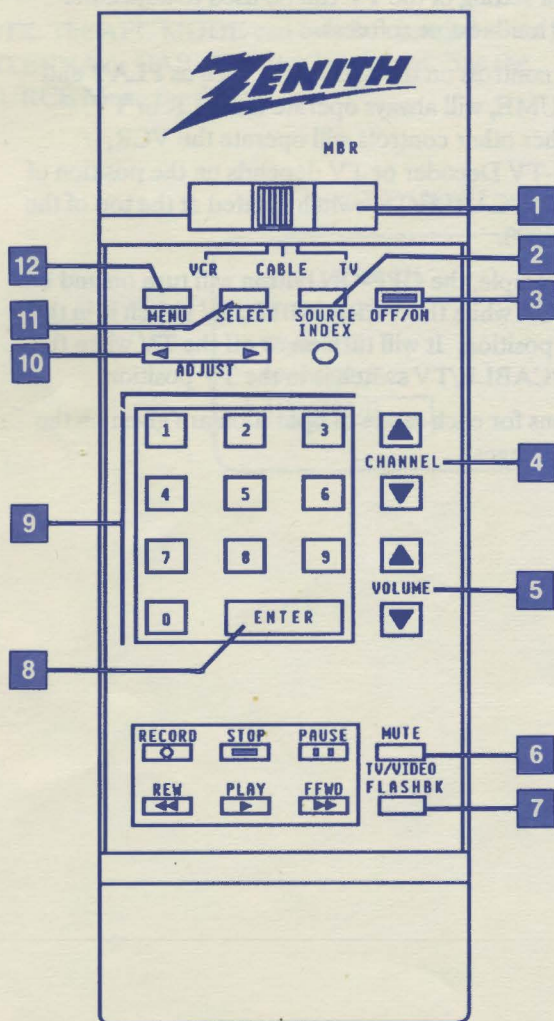
Used to adjust and/or select the on-screen menu options.

11 SELECT

Press to step through the selections on an on-screen menu.

12 MENU

Press once to display the Main Menu Pages. Press again to change Menu Pages.



USING THE REMOTE CONTROL (CONTINUED)

OPERATING YOUR CABLE-TV DECODER

When the VCR/CABLE/TV switch is in the CABLE position, the Numbered Buttons, VOLUME and CHANNEL controls will perform their designated functions no matter what brand of Cable-TV Decoder the MBR3000 is used with.

The other functions shown in the accompanying diagram are those that are used by Zenith Cable-TV Decoders. While these controls may operate functions on other brands of Cable-TV Decoders, you should consult your equipment supplier to determine what these functions may be.

Space has been provided in this manual for you to note this operation for future reference.

For complete operation details, refer to the owners manual supplied with your Cable-TV Decoder.

Remote Control Cable-TV Functions

1 VCR/CABLE/TV

To Operate your Cable-TV Decoder, place this switch in the CABLE position.

2 SOURCE

Selects "A" or "B" Cable.

SOURCE button is: _____ button on non-Zenith remote control.

3 OFF/ON

Press to turn ON or OFF Cable-TV Decoder.

4 CHANNEL

Used to sequence through Cable-TV channels.

5 VOLUME

Used to increase or decrease the volume played through the television (regardless of VCR/CABLE/TV switch position).

6 MUTE

Press to turn sound off while the picture remains. Press again to turn the sound back on.

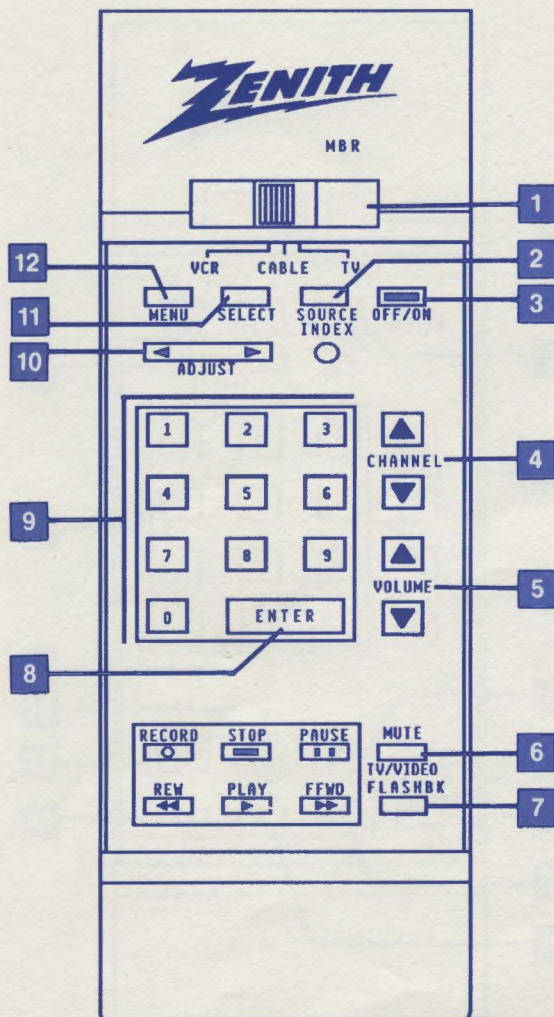
7 FLASHBK (Flashback)

FLSHBK button is: _____ button on non-Zenith remote control.

8 ENTER

If pressed after a channel number is entered with the numbered buttons, the channel will change instantly. Some Cable-TV Decoders will display the number of the channel you are watching, or the time. Press again to remove the display. This button may operate additional features on some Cable-TV Decoders.

ENTER button is: _____ button on non-Zenith remote control.



USING THE REMOTE CONTROL (CONTINUED)

9 Numbered Buttons

Used to select channels. When channels are selected without use of the ENTER button, the Cable box will automatically change to the selected channel in about 2 seconds.

NOTE: If you are entering 2 or 3 digit information, press the numbered buttons within two seconds of each other.

10 ADJUST (left)

Functions as the AM/PM button on Zenith Decoder Remote Control.

ADJUST (left) button is: _____ button on non-Zenith remote control.

ADJUST (right)

Functions as the Clock button on Zenith Decoder Remote Control.

ADJUST (right) button is: _____ button on non-Zenith remote control.

11 SELECT

Functions as Data Entry button on Zenith Decoder Remote Control. When used with the Parental Control, Clear Entry, and Favorite Channel buttons, it allows channels to be programmed into or out of the Channel Scanning Sequence. Selected channels can also be locked out.

SELECT button is: _____ button on non-Zenith remote control.

12 MENU

Functions as Program button on Zenith Decoder Remote Control. When used with the AM/PM and Timer controls, it allows Decoder to turn on, select a channel, then turn off automatically.

MENU button is: _____ button on non-Zenith remote control.

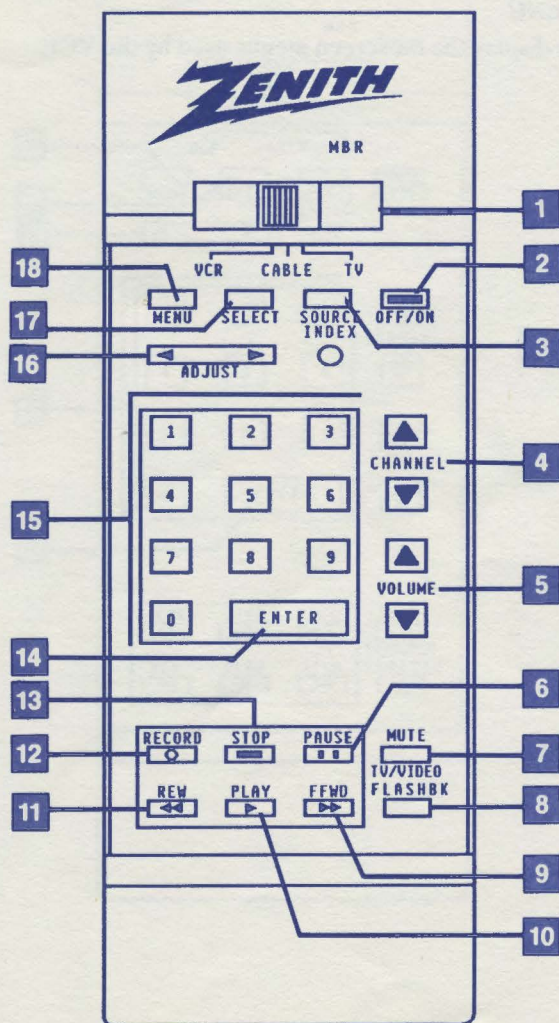
USING THE REMOTE CONTROL (CONTINUED)

OPERATING YOUR ZENITH VCR

The MBR3000 Remote Control has been designed to operate the most recent models of Zenith VCRs. It will operate older VCRs and VCRs that are of other brands but the names of the controls may be different. For this reason, this section has been divided in two: one part describes the operation of Zenith VCRs made in 1989; the other describes older models of Zenith VCRs.

In either case, the following VCR controls will operate independently of the VCR/CABLE/TV switch: RECORD, STOP, PAUSE, REW, PLAY and FFWD.

For complete details on how to operate your VCR, refer to the operating guide supplied with it.



Remote Control VCR Functions (1989 Zenith Models)

1 VCR/CABLE/TV

To operate your VCR, place this switch in the VCR position.

2 OFF/ON

Press to turn VCR ON or OFF.

3 INDEX

Use along with one of the Numbered Buttons and the FFWD or REW buttons to locate an indexed segment of tape.

4 CHANNEL

Used to sequence through channels that are higher (CHANNEL UP) or lower (CHANNEL DOWN) than the channel selected with the tuner of the VCR.

5 VOLUME

Used to increase or decrease the volume of the television.

6 PAUSE

During playback of a VCR tape: press to temporarily stop playback; a "still" picture will appear. Press PLAY to begin the sequence of slow motion on some models.

During recording of a VCR tape: press to temporarily stop recording. Press PLAY to continue recording.

7 TV/VIDEO

While recording, press to view a TV channel tuned in with the tuner of TV. Press again to view a TV channel tuned in with the VCR. Can also be used during playback of a tape.

8 FLASHBK (Flashback)

Certain Zenith VCRs Only: During playback of a tape, press to view a channel selected with the tuner of the VCR. Press again to resume watching tape.

9 FFWD (Fast Forward)

From the VCR STOP mode: press to rapidly advance a VCR tape to a forward location (picture and sound absent).

During VCR Playback: press to quickly view picture playback in forward direction.

10 PLAY

Press to begin VCR playback. Press PLAY a second time to view a muted picture in twice the normal speed on some models.

USING THE REMOTE CONTROL (CONTINUED)

11 REW (Rewind)

With VCR in STOP mode: press to rapidly rewind a tape to its beginning.

During VCR playback: press to quickly review picture playback in the reverse direction.

12 RECORD

Press and hold down the RECORD button until the "Recording" indicator on the VCR illuminates to begin recording.

13 STOP

Press to discontinue recording or playback of a VCR tape. Press and hold to eject a tape.

14 ENTER

Press after a channel number is entered with the Numbered Buttons to change channels instantly. Used to display channel number, time and the mode that the VCR is operating in.

15 Numbered Buttons

Used to select channels and program the VCR timer.

When information is entered without use of the ENTER button, the VCR will automatically respond in about 2 seconds.

NOTE: If you are entering 2 or 3 digit information, press the numbered buttons within two seconds of each other.

16 ADJUST

Used to adjust and/or select the on-screen menu option chosen with the SELECT button. Use ADJUST to correct the tracking during the playback of a recorded tape.

17 SELECT

Used to sequence through the options displayed by an on-screen menu of the VCR. Press during Automatic Timer Recording and the Clock setting procedure to sequence to the next step.

18 MENU

Press to display the on-screen menus used by the VCR.

USING THE REMOTE CONTROL (CONTINUED)

Remote Control VCR Functions (pre-1989 Zenith Models With On-Screen Programming)

Remote Control is programmed to use VCR code 29. See "Programming the Remote Control" for details.

NOTE: All of the remote control buttons function as described in the text above. The following controls are used when programming the timer.

4 CH (Channel)

Used to sequence up and down during programming.

13 ENTER

Press to sequence to the next step in the program.

14 Numbered Buttons

Used to select the day and repeat option. The number on the button corresponds to these selections as follows:

1-SUN	6-FRI
2-MON	7-SAT
3-TUE	8-2ND
4-WED	9-DAILY
5-THUR	0-REPEAT

15 ADJUST

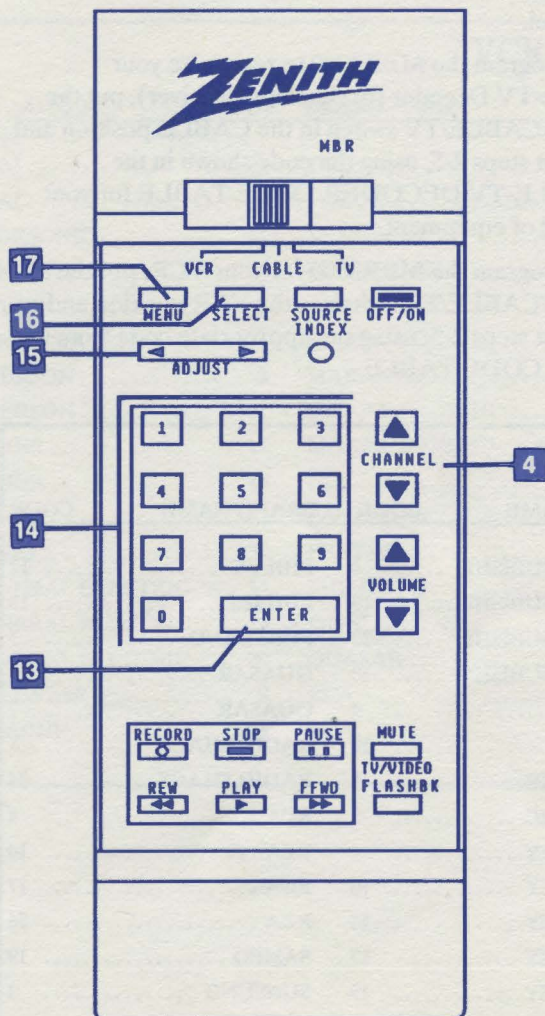
With some models of VCRs, ADJUST Left is used to select either Standard Play (SP) or Extended Play (EP) recording speed. ADJUST Right is also used to set the timer to A.M. or P.M.

16 SELECT

While some VCRs are in the Timer Programming mode, this button can be used to cancel the program selected (Program Cancel). This button can also be used to reset the Elapsed-Time Counter on some VCR models.

17 MENU

Used to select the on-screen program and program number while setting the timer on some older VCRs.



USING THE REMOTE CONTROL (CONTINUED)

PROGRAMMING THE REMOTE CONTROL

Before using the Multi-Brand Remote Control supplied with your new TV, it must be programmed to recognize the brands of the VCR, Cable-TV Decoder and TV it will be used to operate. If you are using a Zenith TV, Zenith VHS VCR and Zenith Cable-TV Decoder, it has already been programmed for you. Otherwise, follow the below steps.

NOTE: The remote control can only be used to operate one VCR, one TV, and one Cable-TV Decoder. If you program it for a TV other than a Zenith, it will not operate your Zenith TV.

1. To program the MBR3000 to recognize your TV, place the VCR/CABLE/TV switch of the MBR3000 in the TV position.
2. Simultaneously hold down the ENTER and "0" buttons until the indicator light on the MBR3000 turns on (about 5 seconds).
3. Use the numbered buttons on the MBR3000 to enter the code that corresponds to the brand of your equipment. The code for your Zenith television is "1." Codes for other brands of TVs, VCRs, Cable-TV Decoders and Satellite Receivers are given in the following tables.

NOTE: Some manufacturers use several different types of remote controls. If your brand has several numbers listed, simply try each one until you find the one that works.

4. After entering the code number, press the ENTER button. The light on the MBR3000 should go out immediately, indicating that it has accepted the programming for that component.

NOTE: If the light fails to go out as soon as the ENTER button is pressed, an error has been made. Repeat steps 2-4.

5. For future reference, write the code you used successfully in the appropriate space on the label. This label can be adhered to the back of the remote control.
6. To program the MBR3000 to recognize your Cable-TV Decoder (or Satellite Receiver), put the VCR/CABLE/TV switch in the CABLE position and repeat steps 2-5, using the code shown in the CABLE-TV DECODER CODE TABLE for your brand of equipment.

To program the MBR3000 for your VCR, put the VCR/CABLE/TV switch in the VCR position and repeat steps 2-5, using the appropriate code from the VCR CODE TABLE.

TV CODE TABLE

BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE
AKAI	4	GENERAL ELECTRIC ...	17	MGA/MITSUBISHI	4	PHILIPS	12
AOC	4	GOLDSTAR	3	MGA/MITSUBISHI	19	PHILIPS	13
CENTURION	19	GOLDSTAR	4	MGA/MITSUBISHI	20	PORTLAND	3
CONTEC	32	HITACHI	2	MGA/MITSUBISHI	30	QUASAR	6
CORONADO	3	HITACHI	3	NEC	4	QUASAR	7
CURTIS-MATHES	19	HITACHI	29	NEC	19	RADIO SHACK	5
DAYTRON	19	KMS	3	PANASONIC	6	RADIO SHACK	24
EMERSON	3	KTV	3	PANASONIC	7	RCA	4
EMERSON	4	KTV	4	J.C. PENNEY	4	RCA	16
EMERSON	23	MAGNAVOX	3	J.C. PENNEY	10	RCA	17
EMERSON	24	MAGNAVOX	12	J.C. PENNEY	14	RCA	26
FISHER	9	MAGNAVOX	13	J.C. PENNEY	17	SAMPO	19
FISHER	18	MAGNAVOX	19	J.C. PENNEY	19	SUNSUNG	3
GENERAL ELECTRIC	6	MAGNAVOX 2.....	27	JVC	25	SANSUNG	19
GENERAL ELECTRIC	7	MAGNAVOX 3.....	28	PHILCO	3	SAMSUNG	32
GENERAL ELECTRIC	14	MARANTZ	4	PHILCO	4	SANYO	8
GENERAL ELECTRIC	16	MARANTZ	20	PHILCO	13	SANYO	9

USING THE REMOTE CONTROL (CONTINUED)

TV CODE TABLE, CONTINUED

BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE
SANYO	18	SHARP	5	SYLVANIA	28	WARDS	5
SCOTT	19	SHARP	22	TATUNG	6	WARDS	13
SEARS	8	SONY	15	TEKNIKA	3	WARDS	14
SEARS	9	SONY	31	TEKNIKA	12	WARDS	19
SEARS	10	SYLVANIA	12	TEKNIKA	24	WARDS	21
SEARS	11	SYLVANIA	13	TOSHIBA	10	WARDS	30
SEARS	18	SYLVANIA	19	TOSHIBA	11	YORX	19
SHARP	3	SYLVANIA	27	WARDS	4	ZENITH	1

VCR CODE TABLE

BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE
AKAI	23	JVC	2	RCA	20	SHINTOM	26
AKAI	24	JVC	25	RCA	27	SONY BETA	10
BROKSONIC	21	KENWOOD	2	RCA	28	SONY VIDEO 8	17
CANNON	14	MAGNAVOX	7	REALISTIC	6	SYLVANIA	7
CITIZEN	9	MAGNAVOX	14	REALISTIC	12	SYLVANIA	14
CURTIS MATHES	14	MARTA	9	REALISTIC	14	SYLVANIA	27
EMERSON	3	MARANTZ	18	REALISTIC	31	SYMPHONIC	31
EMERSON	21	MGA/MITSUBISHI	4	SAMSUNG	20	TASHIKO	9
FISHER	11	MGA/MITSUBISHI	22	SAMSUNG	30	TEAC	31
FISHER	12	NEC	18	SANYO	6	TOSHIBA	5
FISHER	13	PANASONIC	14	SANYO	12	TOSHIBA	15
FUNAI	31	PENTAX	15	SCOTT	4	VECTOR RESEARCH	18
GENERAL ELECTRIC	14	PHILIPS	27	SCOTT	5	WARDS	8
GENERAL ELECTRIC	16	PIONEER	15	SEARS	6	WARDS	19
GENERAL ELECTRIC	20	QUASAR	14	SEARS	11	ZENITH BETA	10
GOLDSTAR	9	RCA	15	SEARS	15	ZENITH VHS	1
HITACHI	15	RCA	16	SHARP	8	ZENITH MODEL YEARS B, C & D ('84-'88)	29

USING THE REMOTE CONTROL (CONTINUED)

CABLE-TV-DECODER CODE TABLE

BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME	CODE
HAMLIN RCPX	19	MACOM	21	PHILIPS CTC9	25	TOCOM VIP RC300	18
HAMLIN CRP6	2	OAK SIGMA	11	PHILIPS CVS2700	24	VIEWSTAR MXC2001A ...	27
HAMLIN CRP6S	2	OAK TC56	12	PHILIPS CV1000	26	VIEWSTAR MXC2501	26
HAMLIN CRP7	3	OAK RCU-400	12	PHILIPS TS67	26	VIEWSTAR VSC2000	27
HAMLIN CRP8	3	OAK 500	32	PHILIPS PG67	27	VIEWSTAR VSC2020	26
JERROLD SRC II	4	OAK 550	32	PHILIPS CP67	27	VIEWSTAR VSC2040	27
JERROLD VI	4	PANASONIC TZ120	13	PHILIPS CP67	27	VIEWSTAR VSC2500	26
GEMINI	31	PANASONIC TZ170	20	PIONEER BR-50	14	VIEWSTAR VSC2511	26
G.I. STARCOM CS	5	PHILIPS COLOUR VOICE		PIONEER BR-80	15	ZENITH	1
G.I. STARCOM XT	6	2000	23	PIONEER BRT-81	15	ZENITH/DRAKE SATELLITE	
JERROLD 400	7	PHILIPS CHANNEL PLUS		REGENCY	29	5000	28
JERROLD 440	8	100	23	S.A. 6700	33	ZENITH/DRAKE SATELLITE	
JERROLD 450	9	PHILIPS CP200	23	S.A. 8550	16	6000	28
JERROLD 700	8	PHILIPS CV2500	23	TEXSCAN	30	ZENITH/TOSHIBA/MACOM	
JERROLD 770	10	PHILIPS CTC8R	25	TOCOM RC100	17	SATELLITE	22

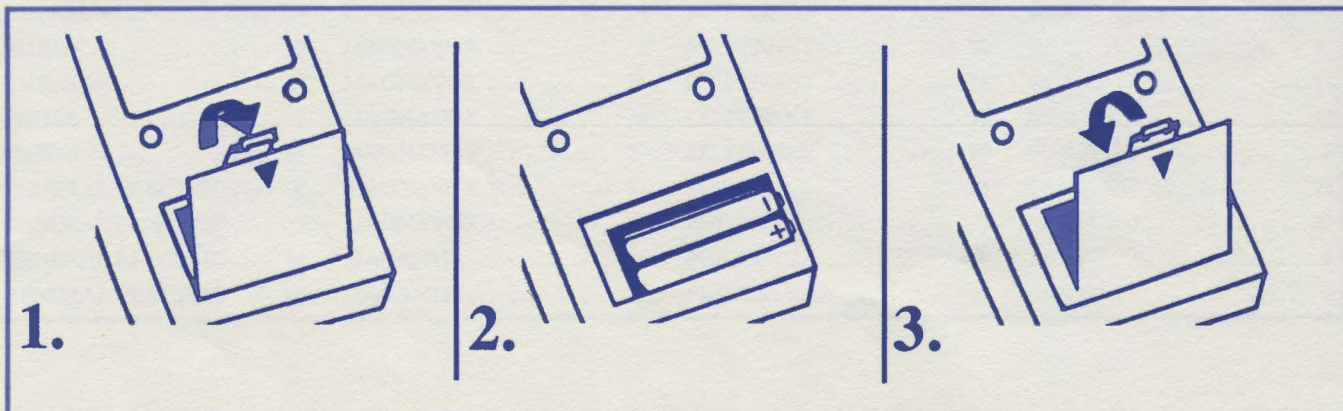
BATTERY REPLACEMENT

Your MBR3000 comes with batteries installed. When its effective operating range becomes noticeably shorter, replace the batteries with two (2) high-quality, alkaline, size AAA batteries.

1. Remove the battery compartment cover. PUSH DOWN tab and PULL OUT from top.
2. Insert new batteries as indicated in the diagram inside the compartment.
3. Replace the cover by inserting the tab on the bottom of the cover into its housing. Snap the cover into position.
4. After installing new batteries, the remote control will set itself to the Zenith TV, CABLE and VCR Code #1. If you are using the remote control to operate equipment that uses different codes, it will have to be reprogrammed for those codes.

NOTES:

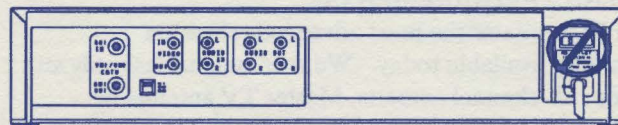
- Be careful to not place heavy objects on top of the remote control buttons. Prolonged accidental operation of the remote control will shorten battery life.
- If you will not use the remote control for a month or more remove the batteries. Battery leakage can cause damage to the remote control.



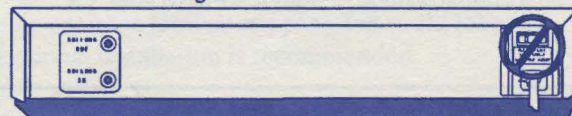
CONNECTIONS FOR YOUR TV

PLUGGING IN YOUR TV

Be sure to plug your TV into an "unswitched" wall outlet to which power is constantly supplied. The "switched" AC outlets found on many cable decoders (and VCRs) will not continue supplying power to the TV once the decoder is turned off. If the power supply to the TV is interrupted for an extended time (over 1 hour), all of the TV's "memory" features including the Time display, TV audio/video adjustments and signal source selection will return to their factory settings.



Do Not Plug TV into VCR Switched Outlet



Do Not Plug TV into Cable/Decoder Switched Outlet

INPUT SOURCES FOR THE TV

Most TVs have a single RF (radio frequency) input, meaning you can only direct one "signal source" to your TV at a time. The "Signal source" refers to what is supplying the picture and/or sound to your TV. The most common "signal source" is your outdoor or master antenna or cable-TV system. When you watch the tape play back from your VCR, for example, the VCR becomes the "signal source."

Your Zenith TV has two RF inputs so your TV can be connected to more than one "signal source" at the same time. For example, you can connect a VCR and a Video Disc Player to your TV and watch the pro-gram from either one without reconnecting any cables.

Each RF input (antenna/decoder and cable) on the back of your TV has a corresponding "source selection" in the SOURCE Menu display. Choose the TV Source that corresponds to the RF input you are using.

JACK PANEL

The jack panel lets you connect a variety of audio/video components to your TV. Some of the components you can connect include VCRs, camcorders, home video games, video disc players, stereo receivers, and Super VHS (S-VHS) VCRs.

1 75-OHM RF ANTENNA CONNECTIONS

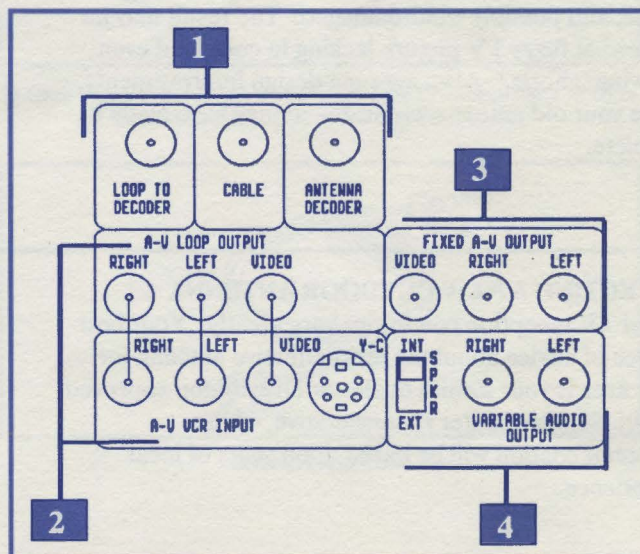
Attach your antenna or cable TV line to these jacks. The input cables may come from the outdoor or master antenna, cable TV line, cable decoder box or RF antenna output from a monaural VCR.

2 AUXILIARY A-V INPUT/LOOP

Use these jacks to receive audio/video signals from other components such as a stereo VCR (both audio and video), a stereo receiver/amplifier (audio), a video disc player (audio and video) or other audio sources (audio).

3 AUDIO OUT JACKS

Use these jacks to send a fixed audio level and a fixed video level to another component, such as a VCR for recording purposes.



4 VARIABLE AUDIO OUT JACKS

Audio signals from the TV can be sent to external speakers or sound amplification equipment. With the SPKR switch in the "EXT" (external) position, the TV speakers are turned off. With the SPKR switch in the "INT" (internal) position, the TV speakers are turned on. In either case, use the TV remote control to adjust the volume level provided to the RIGHT and LEFT output jacks.

CONNECTIONS FOR YOUR TV (CONTINUED)

ANTENNA REQUIREMENTS

Your TV contains the most advanced television technology available today. We recommend that only an outdoor all-channel antenna, Master TV antenna or CATV cable input be used. If an antenna is used, it should be terminated in a 75 ohm lead-in to your TV.

OUTDOOR ANTENNAS

A TV antenna is really a "net" to catch waves transmitted by a TV station. A good picture on your television set depends on how well your antenna captures the waves radiated by the TV stations.

Your Zenith TV will work in most locations on an outdoor antenna. The quality of your picture may depend on a) the proper antenna, in good working order, b) how far you are from the television transmitters and, c) the nearness of such obstructions as tall buildings, towers, or mountains. An outdoor antenna pulls in more signal to produce the best picture and reduces or eliminates problems created by weak reception.

Check your outdoor antenna from time to time to see that it is not wind-damaged. Inspect the lead-in cable for cracks, or other damage. Antennas with missing elements or a poor lead-in cable are a prime cause of poor picture reception. Replace the antenna or lead-in cable if necessary. Professional installation of the antenna or antenna components is recommended. As described in the subsequent paragraphs on antenna installation, it is hazardous work and can result in fatal or crippling falls.

WHEN YOU NEED A NEW OUTDOOR ANTENNA

No matter what kind of TV roof antenna you have, if it is several years old, it is probably oxidized, coated with grime, and possibly wind-damaged. The result may be somewhat fuzzy TV picture lacking in color and even showing "ghosts." Also, antenna design improvements since your old antenna was installed may have made it obsolete.

People who have owned a TV for several years shrug off less-than-perfect pictures, blaming them on the age of the TV. They are pleased to discover that a new outdoor all-channel antenna suddenly brings their TV screen to life with bright, sharp, colorful pictures. See your Zenith dealer for a full line of 75 ohm antennas.

SELECTING A NEW OUTDOOR ANTENNA

Local TV reception conditions vary greatly. Your best source of advice about the most effective antenna for your area is your Zenith dealer or Distributor-approved Zenith Service Center representative, whose recommendation will be based upon years of local experience.

Generally, the more elements in the antenna array, the more signal it can capture. Small VHF units may have only 8 elements. Large units for deep fringe area reception may have as many as 70 or more elements. If you use two or more TVs on the same antenna, its signal must be divided between each TV with a signal splitter (optional) available from your Zenith dealer. If you operate more than one TV, the antenna may need to be a little larger.

ANTENNA SIGNAL BOOSTERS (AMPLIFIERS)

If you have a severe fringe-area problem, the solution may be a signal booster (amplifier). The signal booster is installed between the antenna and the TV, usually next to the antenna, in an attic. It magnifies incoming signals to provide a better picture and is available as an optional accessory from your local Zenith dealer.

The signal booster is especially useful for motels, clubs and other places operating a number of TVs from one antenna, since it boosts signal strength sufficiently to provide a good picture on each TV, and saves the installation of additional antennas.

CONNECTIONS FOR YOUR TV (CONTINUED)



WARNING

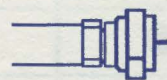
INSTALLING AN OUTDOOR ANTENNA

Installing an outdoor antenna is hazardous work. Extreme care must be used. Never work in the vicinity of electric power lines. Accidental contact with the power lines by a metal ladder, the metal antenna structure, or antenna wire could result in fatal shock.

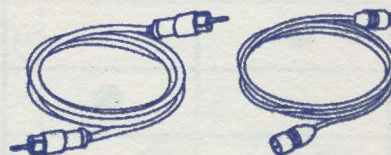
Also, handling a cumbersome antenna structure on a sloping roof is difficult and requires two people. If you stumble or slip, a fatal or crippling fall could follow. Professional installation is recommended.

CABLES FOR AUXILIARY COMPONENTS

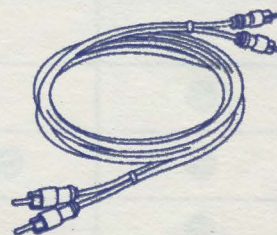
In connecting auxiliary components to your TV system, you will need one or more of the cables shown at the right. You may purchase any cables that are needed through your Zenith dealer.



75 Ohm Coaxial Cable From Antenna or Cable TV



75 Ohm Video Cable (Left) with Phono-Type Connectors and 75 Ohm Coaxial Cable (Right) with F-Type Connector



Stereo/Audio Cable

CONNECTIONS FOR YOUR TV (CONTINUED)

QUICK REFERENCE TO CONNECTION DIAGRAMS

Find the type of system hook-up you want by matching the items shown in the following chart. Then refer to the corresponding diagram number.

DIAGRAM NUMBER	ANTENNA	MONAURAL VCR	STEREO VCR	CABLE W/O BOX	CABLE WITH BOX	SPECIAL ITEM
1	●					
2A, B	●	●				
3	●		●			
4				●		
5	●			●		
6	●	●		●		
7	●		●	●		
8		●		●		
9			●	●		
10					●	
11A, B		●			●	
12A, B			●		●	
13	●				●	
14	●	●			●	
15	●		●		●	
16						S-VHS VCR
17						AUDIO EQUIP

CONNECTIONS FOR YOUR TV (CONTINUED)

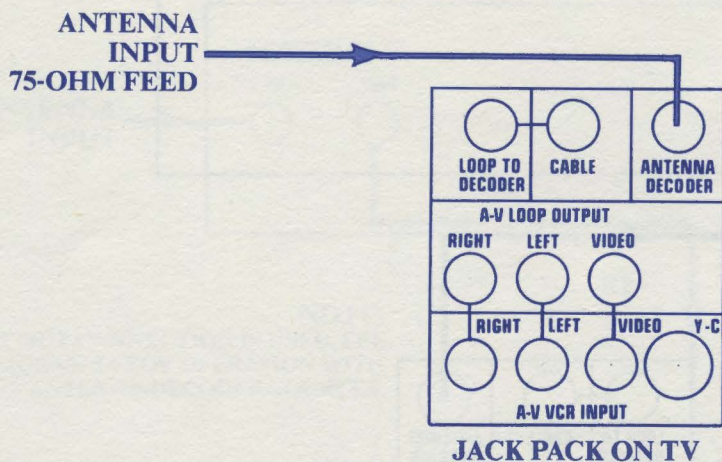
DIAGRAM 1—BASIC ANTENNA CONNECTION

BASIC ANTENNA CONNECTION

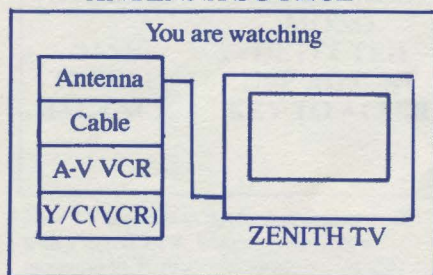
This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special

wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



FOR BROADCAST TV FROM ANTENNA, SELECT ANTENNA SOURCE



CONNECTIONS FOR YOUR TV (CONTINUED)

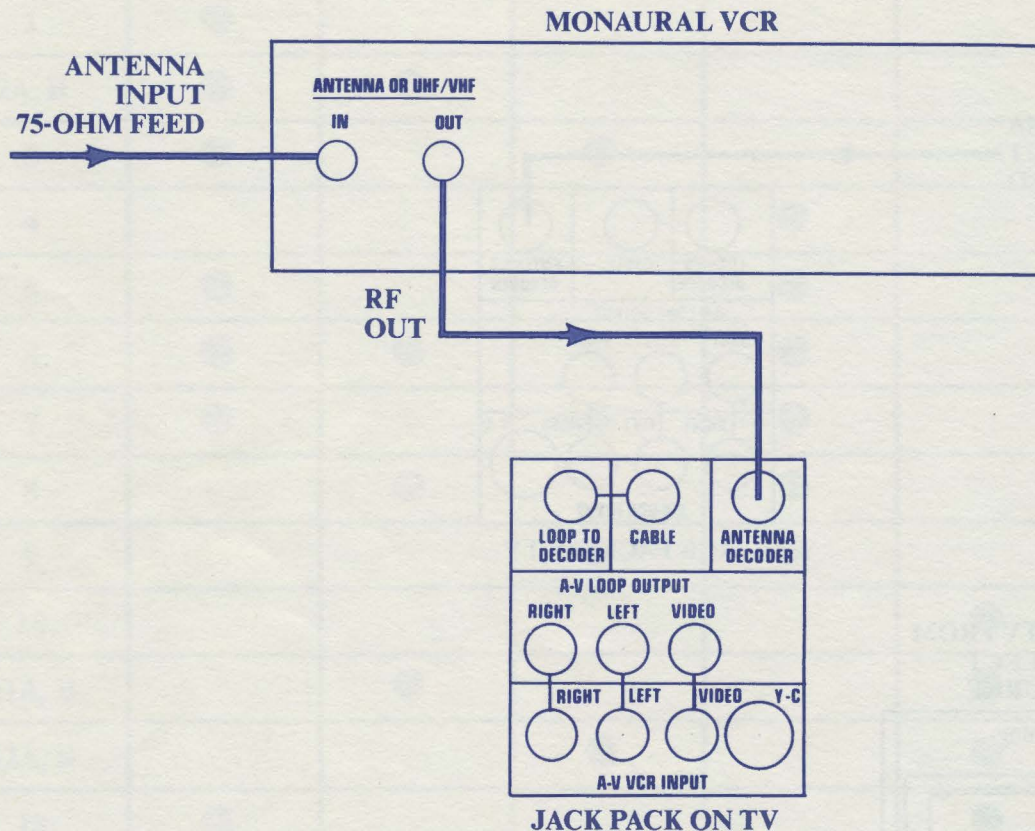
DIAGRAM 2A—ANTENNA AND MONAURAL VCR (OPTION #1)

BASIC ANTENNA CONNECTION

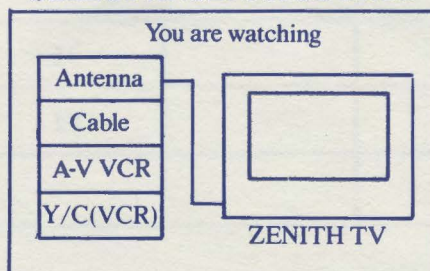
This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special

wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



FOR BROADCAST TV AND RF OUT FROM VCR, SELECT ANTENNA SOURCE



When TV/VCR Switch on VCR is in VCR position, tune TV to channel 3 or 4.

CONNECTIONS FOR YOUR TV (CONTINUED)

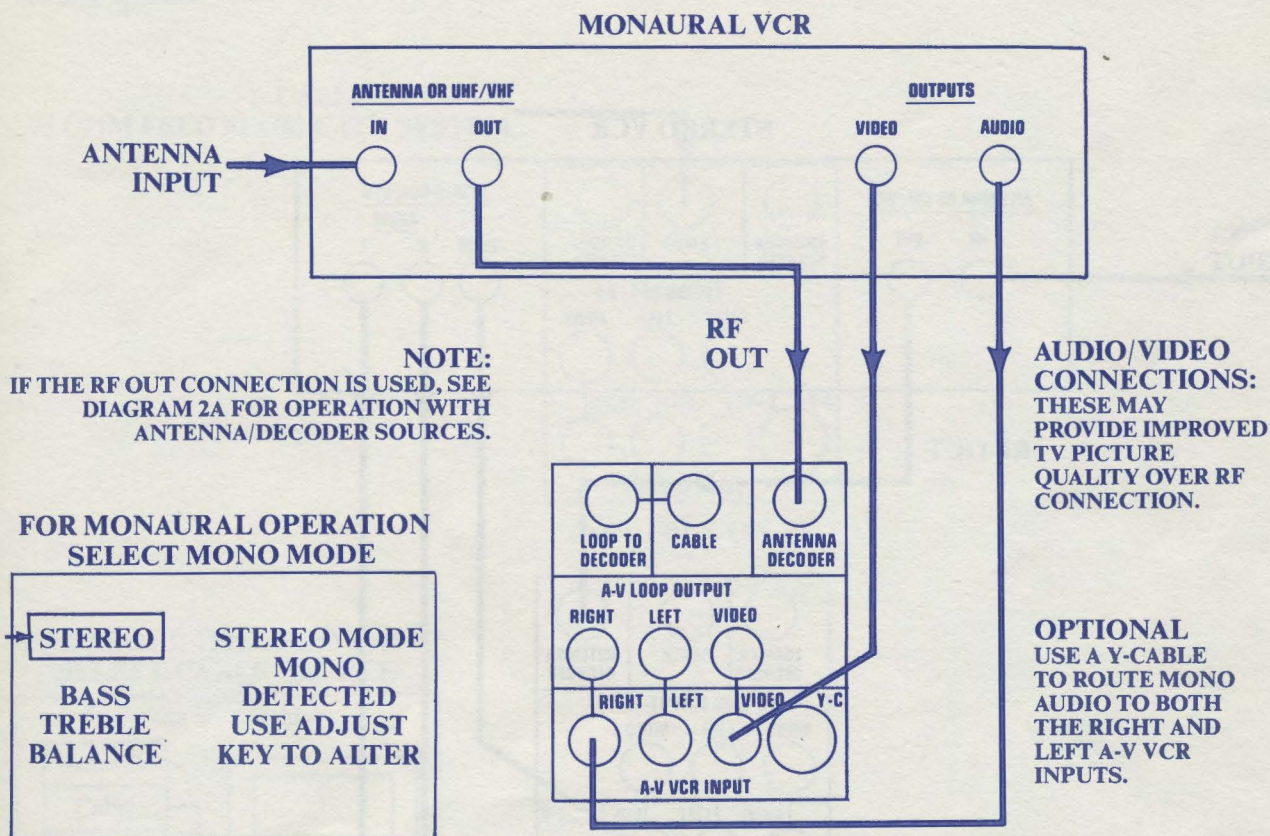
DIAGRAM 2B—ANTENNA AND MONAURAL VCR (OPTION #2)

BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special

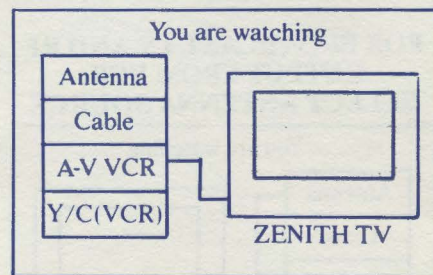
wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



Your TV is preset at the factory for use with a stereo VCR. Before connecting a monaural VCR, make this simple adjustment:

1. Press the SOURCE button to view the Source Menu.
2. Continue to press and release the ADJUST button until the VCR selection is indicated. You can now set the TV for use with a mono VCR.
3. Press and release the MENU button until the AUDIO page of the Main Menu is displayed.
4. With the AUDIO page displayed, press SELECT to select the "Stereo Mode."
5. Press ADJUST until the display reads "MONO AVAILABLE." Your TV is now set for a mono VCR. This setting will not affect the stereo setting for normal TV viewing.

FOR AUDIO/VIDEO CONNECTIONS, SELECT A-V VCR SOURCE



CONNECTIONS FOR YOUR TV (CONTINUED)

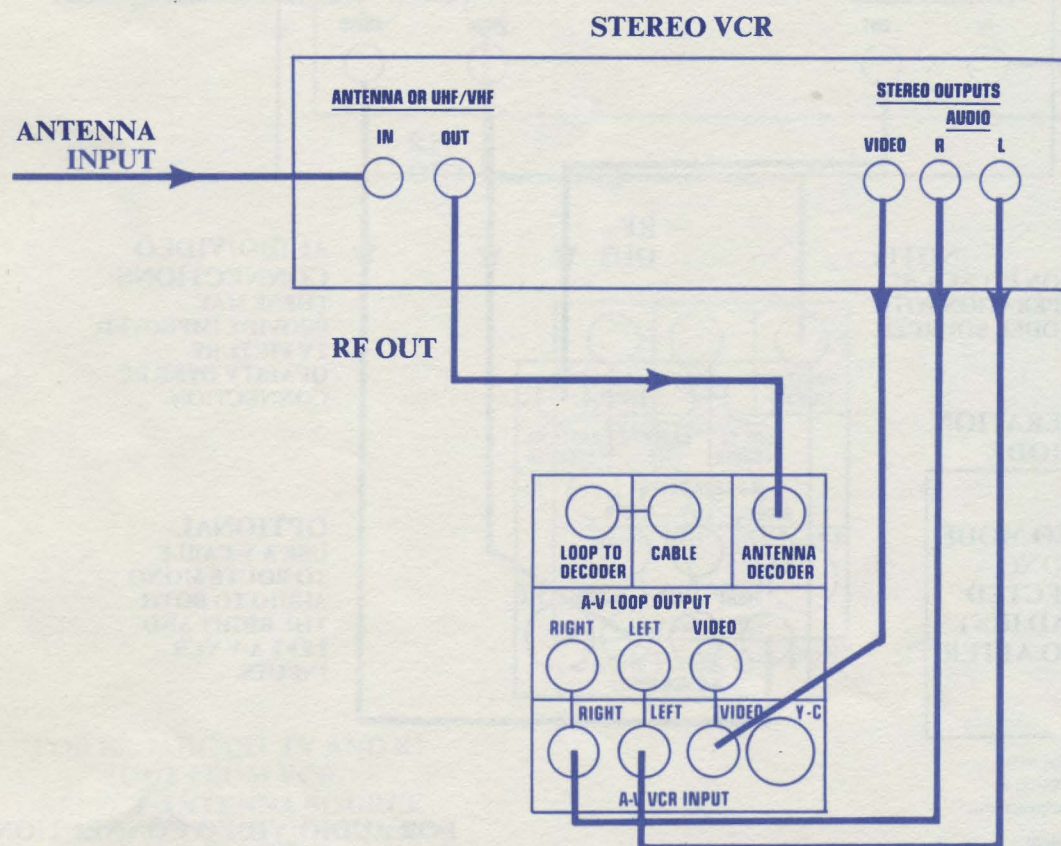
DIAGRAM 3—ANTENNA AND STEREO VCR

BASIC ANTENNA CONNECTION

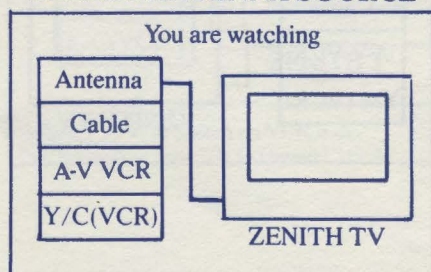
This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special

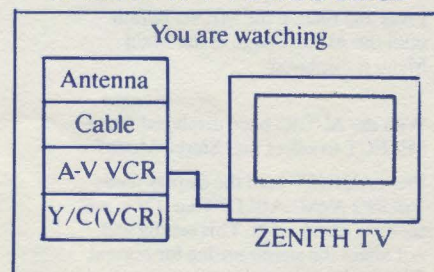
wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



FOR BROADCAST TV AND RF OUTPUT FROM VCR, SELECT ANTENNA SOURCE



FOR STEREO VCR OUTPUT, SELECT A-V VCR SOURCE



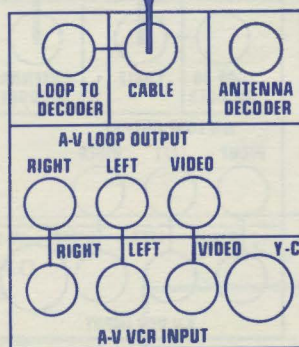
CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 4—CABLE TV WITHOUT DECODER BOX

BASIC CABLE CONNECTION

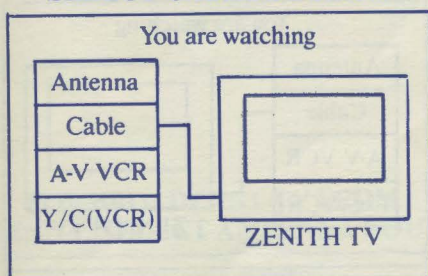
Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

CABLE TV INPUT
75 OHM FEED FROM CATV SYSTEM



JACK PACK ON TV

FOR PROGRAMS FROM CATV, SELECT CABLE SOURCE



With this hook-up, you can select "basic" cable channels with your TV's remote control. "Basic" cable channels are also known as "unscrambled" or "free" channels. They do not require a decoder box.

CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 5—CABLE TV (WITHOUT DECODER BOX) AND ANTENNA

BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.

BASIC CABLE CONNECTION

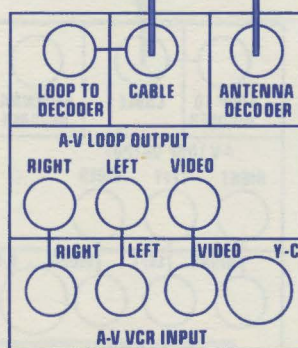
Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

CABLE TV INPUT

75 OHM FEED FROM CATV SYSTEM

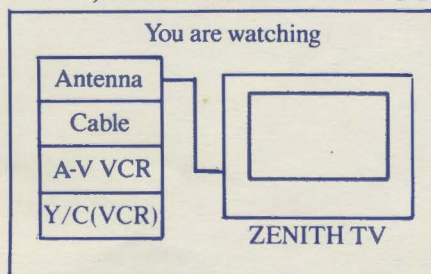
ANTENNA INPUT

75 OHM FEED

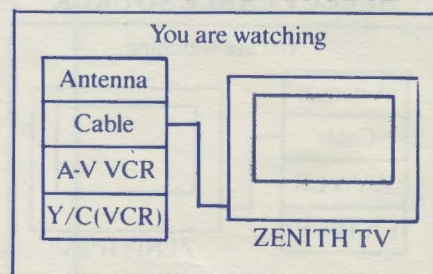


JACK PACK ON TV

FOR BROADCAST TV FROM ANTENNA, SELECT ANTENNA SOURCE



FOR PROGRAMS FROM CATV, SELECT CABLE SOURCE



With this hook-up, you can select "basic" cable channels with your TV's remote control. "Basic" cable channels are also known as "unscrambled" or "free" channels. They do not require a decoder box.

CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 6—CABLE TV (WITHOUT DECODER BOX), MONAURAL VCR AND ANTENNA

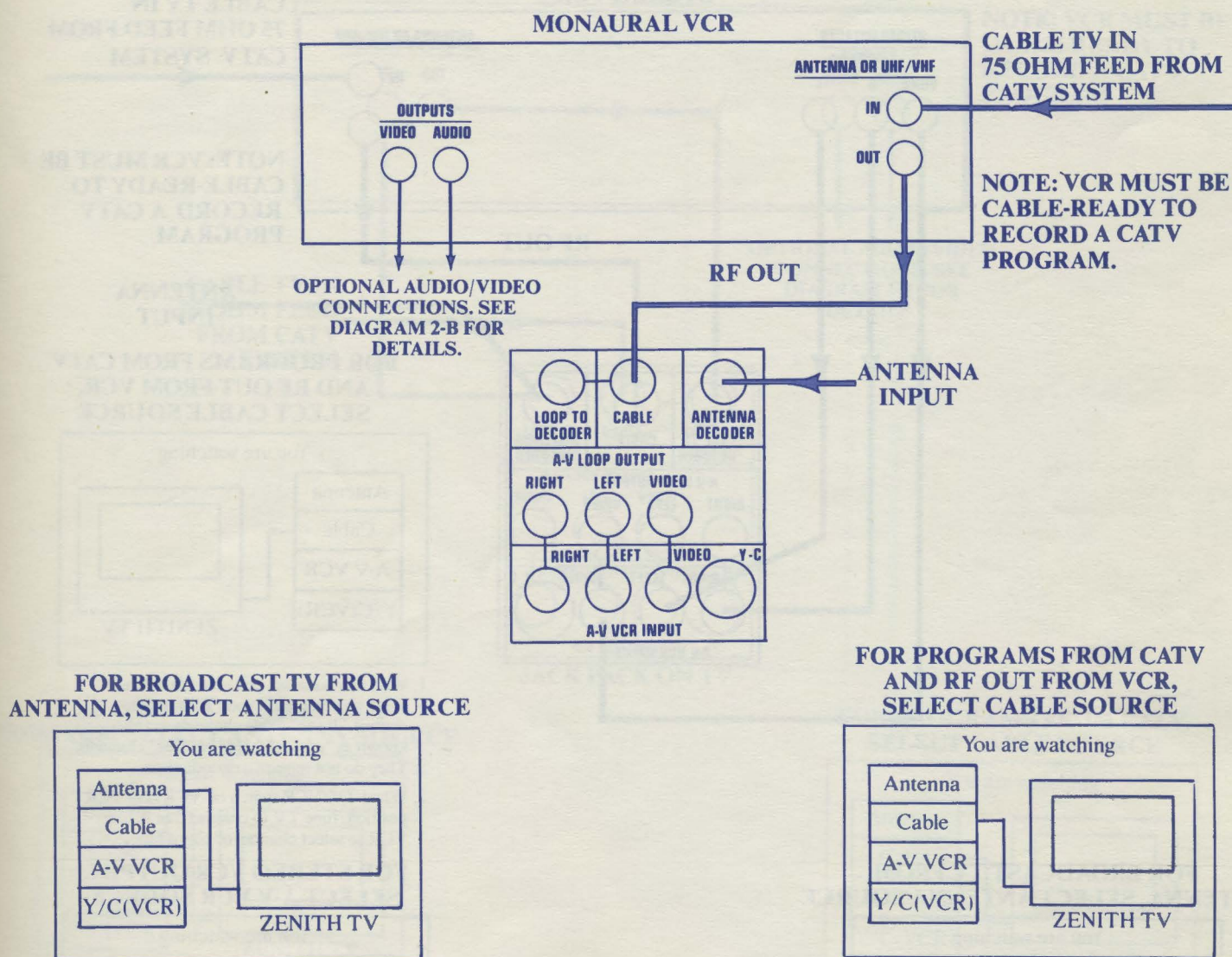
BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.

BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.



CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 7 CABLE TV (WITHOUT DECODER BOX), STEREO VCR AND ANTENNA

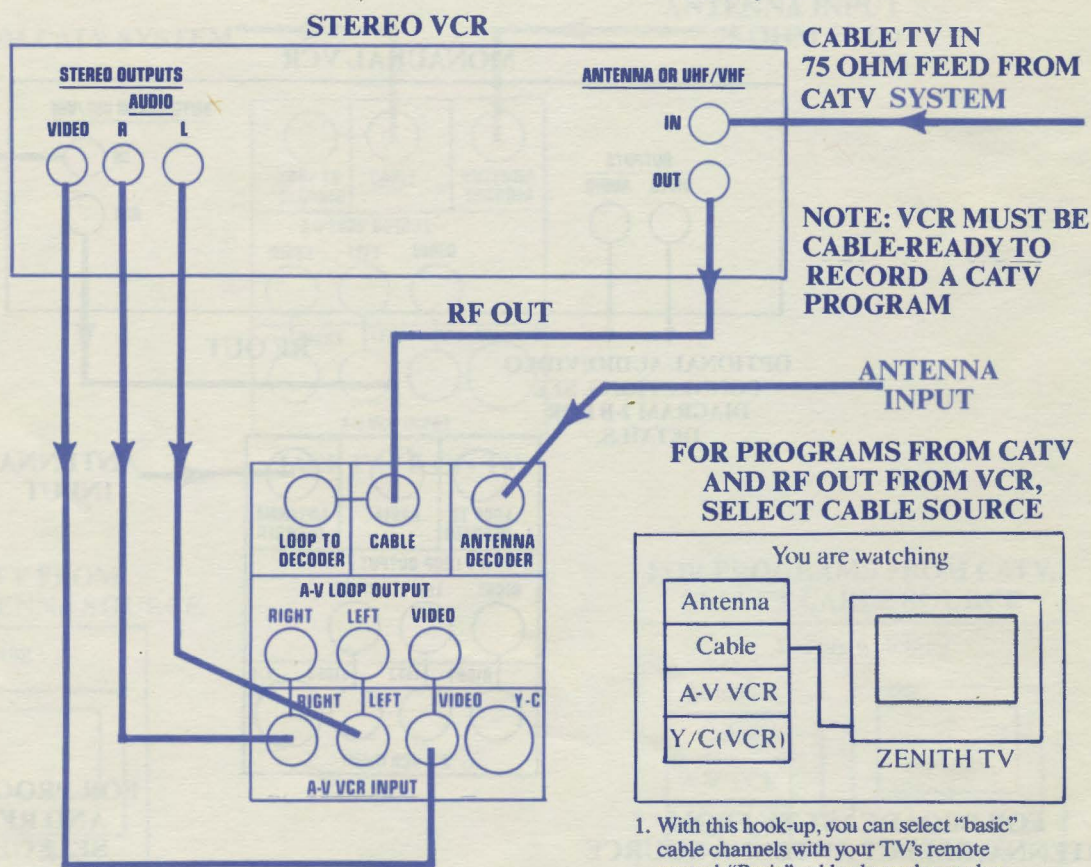
BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

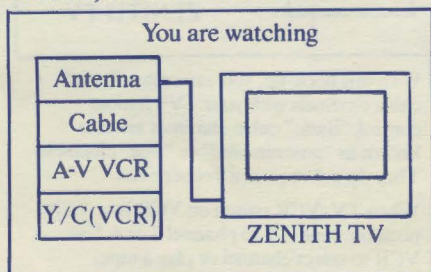
- Master Antenna System — Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.

BASIC CABLE CONNECTION

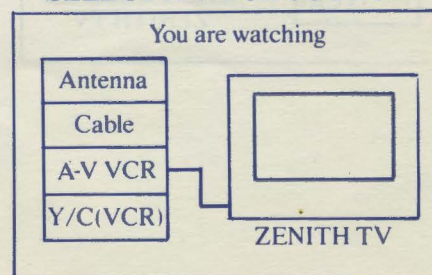
Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.



FOR BROADCAST TV FROM ANTENNA, SELECT ANTENNA SOURCE



FOR STEREO VCR OUTPUT, SELECT A-V VCR SOURCE



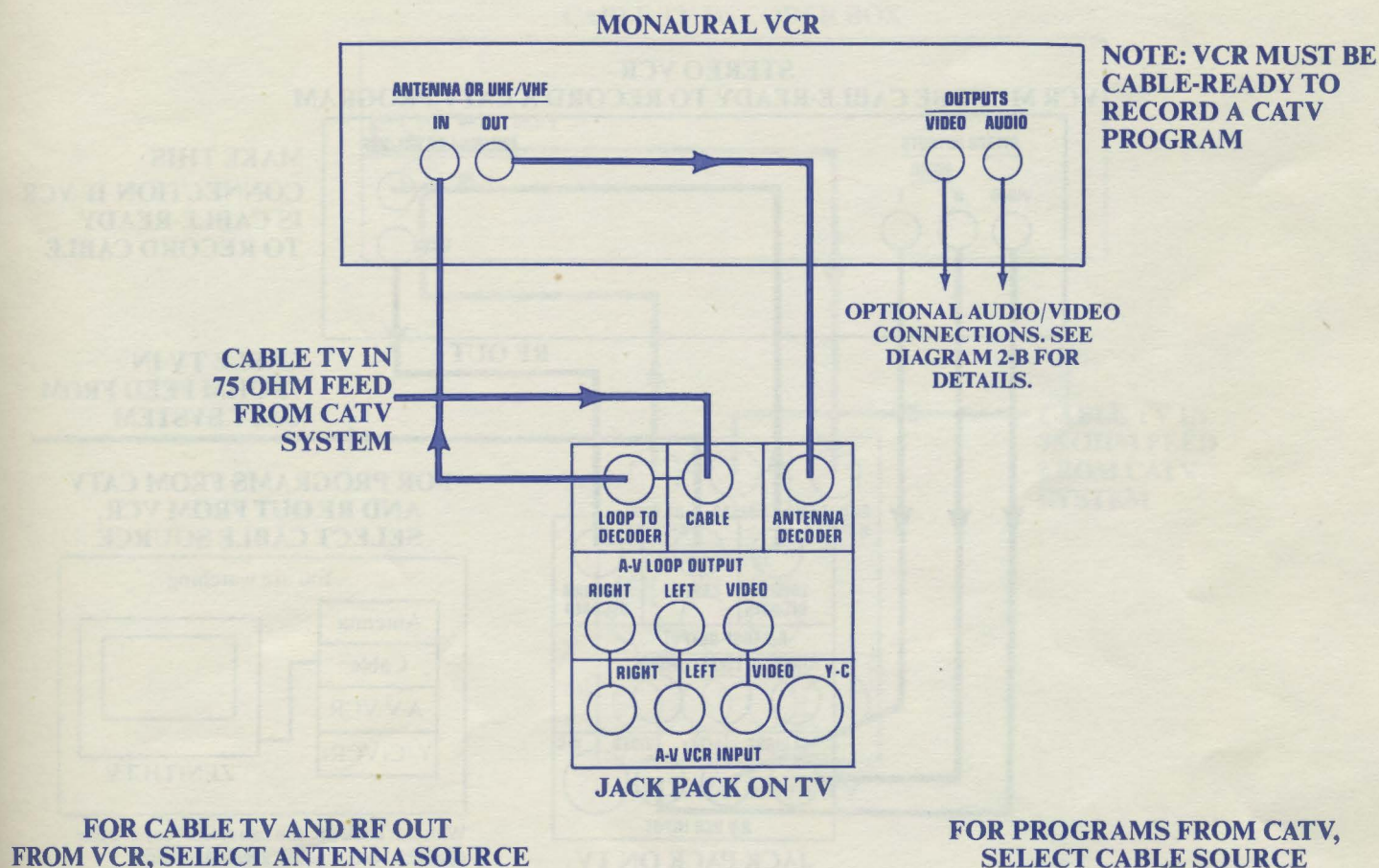
1. With this hook-up, you can select "basic" cable channels with your TV's remote control. "Basic" cable channels are also known as "unscrambled" or "free" channels. They do not require a decoder box.
2. When TV/VCR switch on VCR is in VCR position, tune TV to channel 3 or 4. Use VCR to select channel or play a tape.

CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 8 CABLE TV (WITHOUT DECODER BOX), AND MONAURAL VCR

BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.



When TV/VCR switch on VCR is in VCR position, tune TV to channel 3 or 4. Use VCR to select channel or play a tape.

With this hook-up, you can select "basic" cable channels with your TV's remote control. "Basic" cable channels are also known as "unscrambled" or "free" channels. They do not require a decoder box.

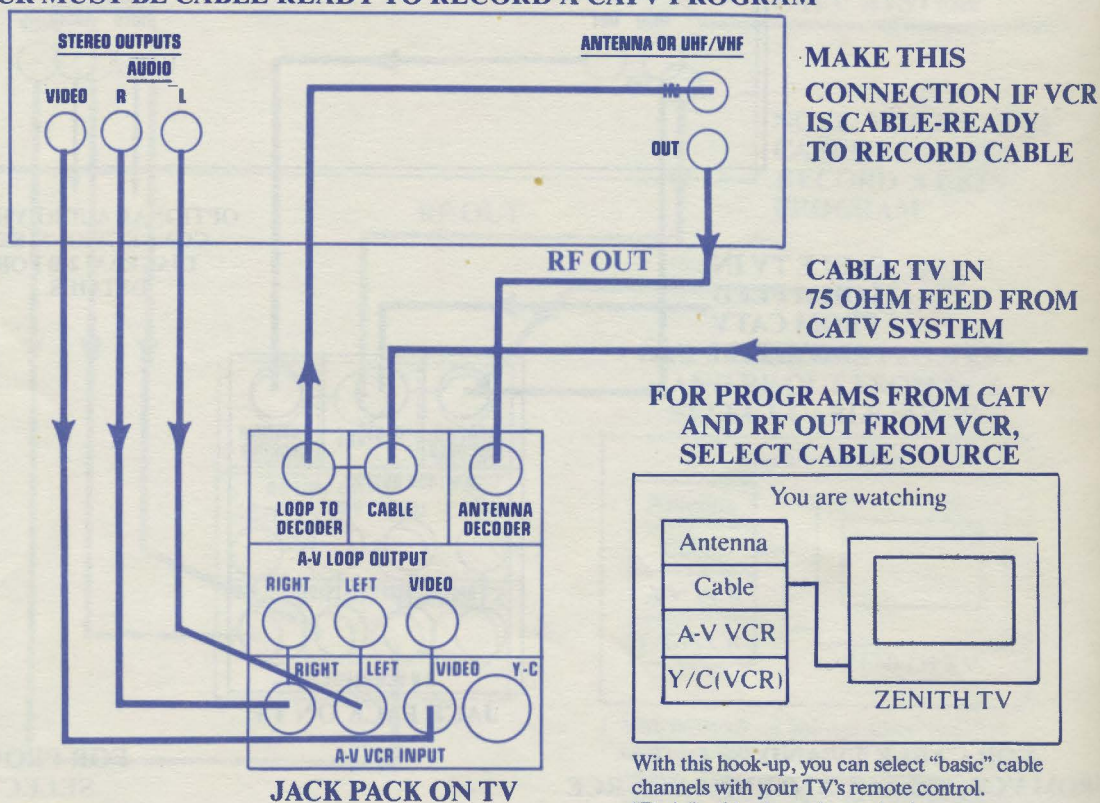
CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 9 CABLE TV (WITHOUT DECODER BOX) AND STEREO VCR

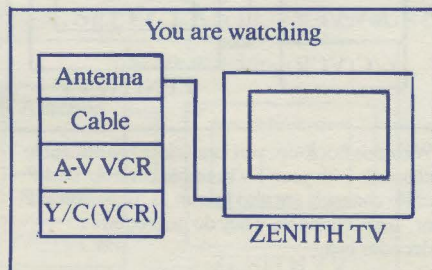
BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

STEREO VCR— VCR MUST BE CABLE-READY TO RECORD A CATV PROGRAM

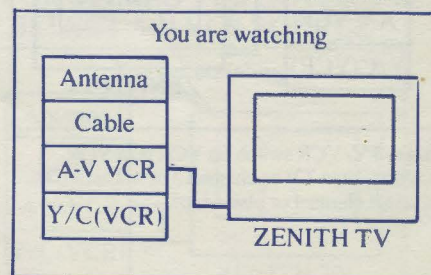


FOR CABLE TV AND RF OUT FROM VCR, SELECT ANTENNA SOURCE



When TV/VCR switch on VCR is in VCR position, tune TV to channel 3 or 4. Use VCR to select channel or play a tape.

FOR STEREO VCR OUTPUT, SELECT A-V VCR SOURCE

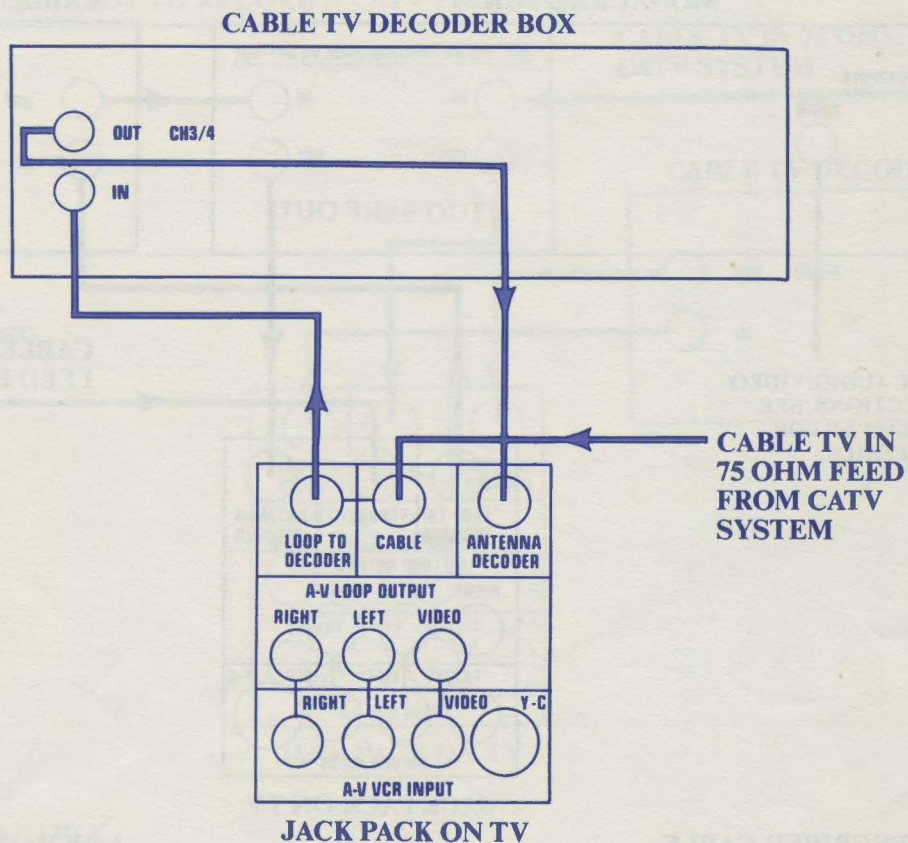


CONNECTIONS FOR YOUR TV (CONTINUED)

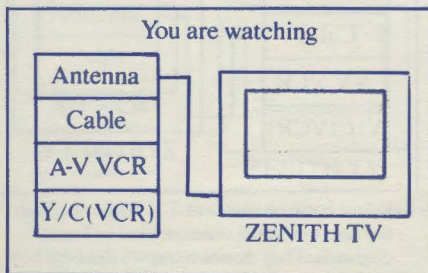
BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

DIAGRAM 10 CABLE TV WITH DECODER BOX

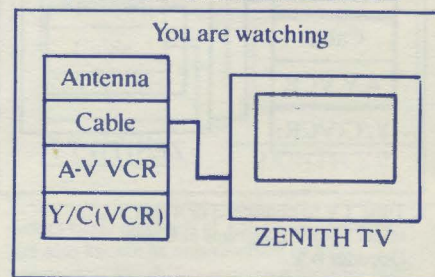


FOR SUBSCRIBED CABLE CHANNELS, SELECT ANTENNA SOURCE



Tune TV to channel 3 or 4 and select CATV programs at Cable Decoder box.

FOR BASIC CATV CHANNELS, SELECT CABLE SOURCE



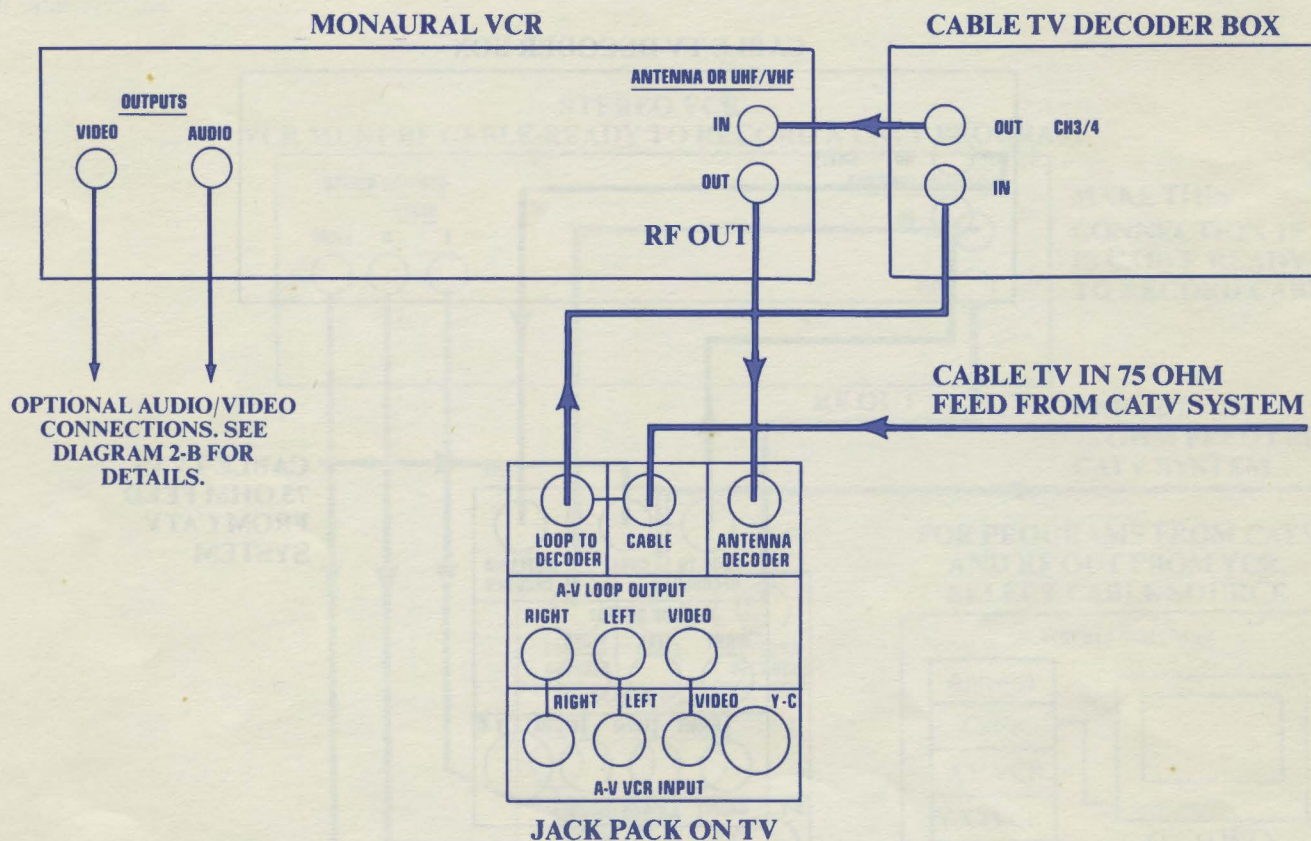
Select basic channels at TV. Basic channels are also known as unscrambled or free channels. They do not require a decoder box.

CONNECTIONS FOR YOUR TV (CONTINUED)

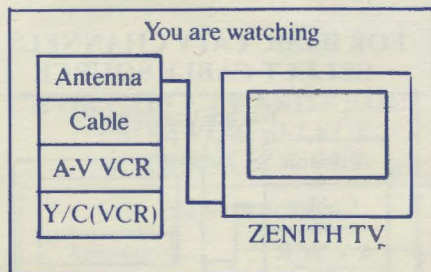
BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

DIAGRAM 11A CABLE TV WITH DECODER BOX AND MONAURAL VCR (OPTION #1)

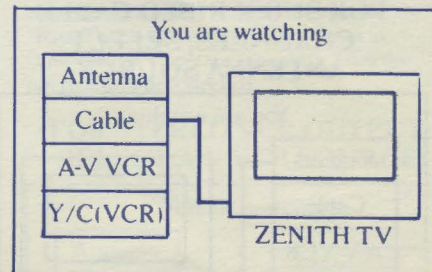


FOR SUBSCRIBED CABLE CHANNELS, SELECT ANTENNA SOURCE



1. Tune TV to channel 3 or 4 and select CATV programs at Cable Decoder box.
2. You can use VCR to play a tape.

FOR BASIC CATV CHANNELS, SELECT CABLE SOURCE



1. Select basic channels at TV. Basic channels are also known as unscrambled or free channels. They do not require a decoder box.
2. While watching a Basic channel, you can record any subscribed CATV channel on the VCR.

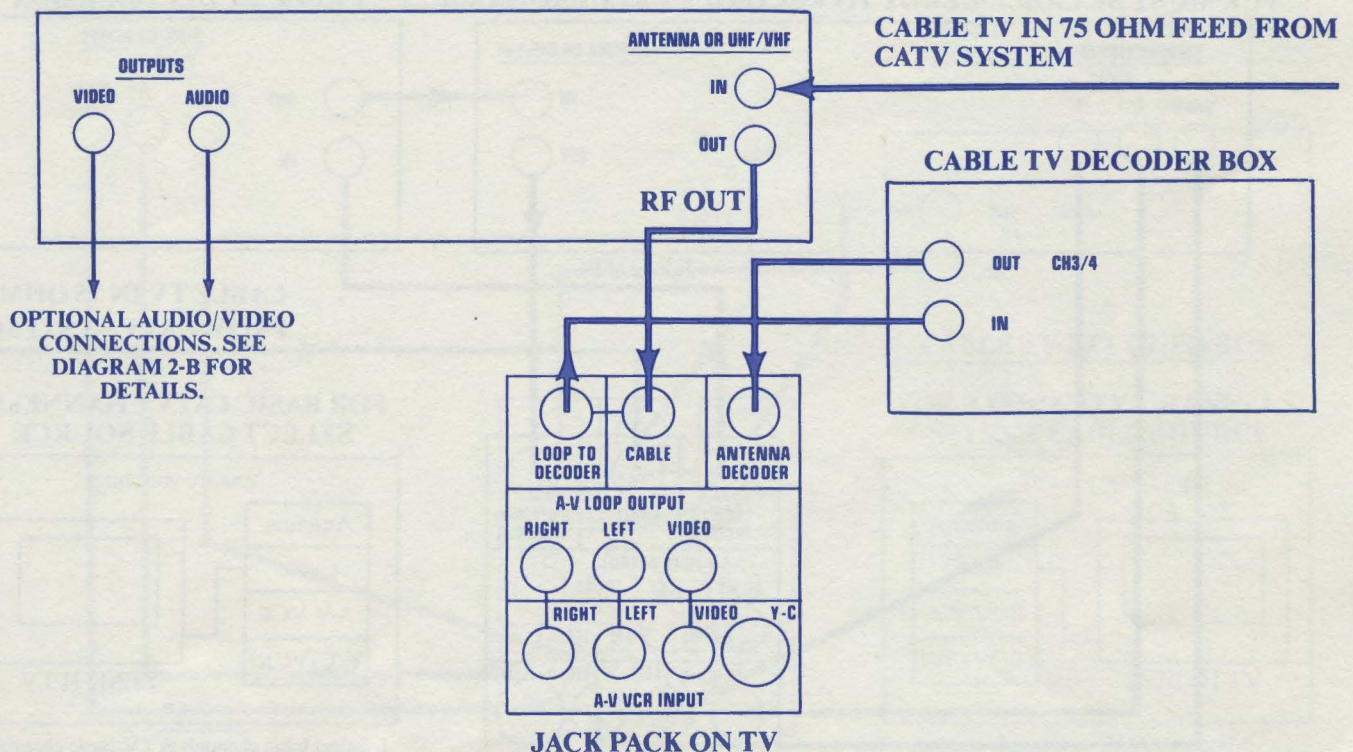
CONNECTIONS FOR YOUR TV (CONTINUED)

BASIC CABLE CONNECTION

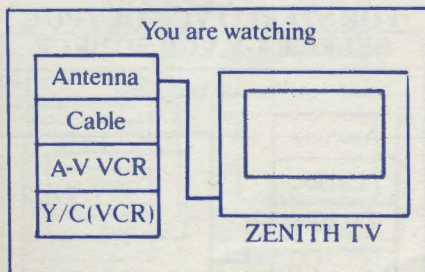
Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

DIAGRAM 11B CABLE TV WITH DECODER BOX AND MONAURAL VCR (OPTION #2)

MONAURAL VCR VCR MUST BE CABLE READY TO RECORD A CATV PROGRAM

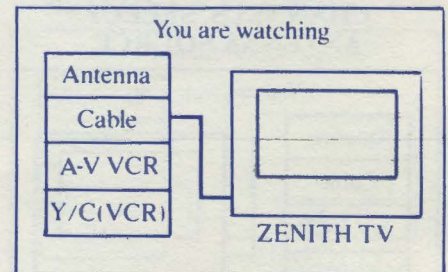


FOR SUBSCRIBED CABLE CHANNELS, SELECT ANTENNA SOURCE



1. Tune TV to channel 3 or 4 and select CATV programs at Cable Decoder box.
2. While watching a Subscribed channel, you can record any Basic channel on the VCR.

FOR BASIC CATV CHANNELS, SELECT CABLE SOURCE



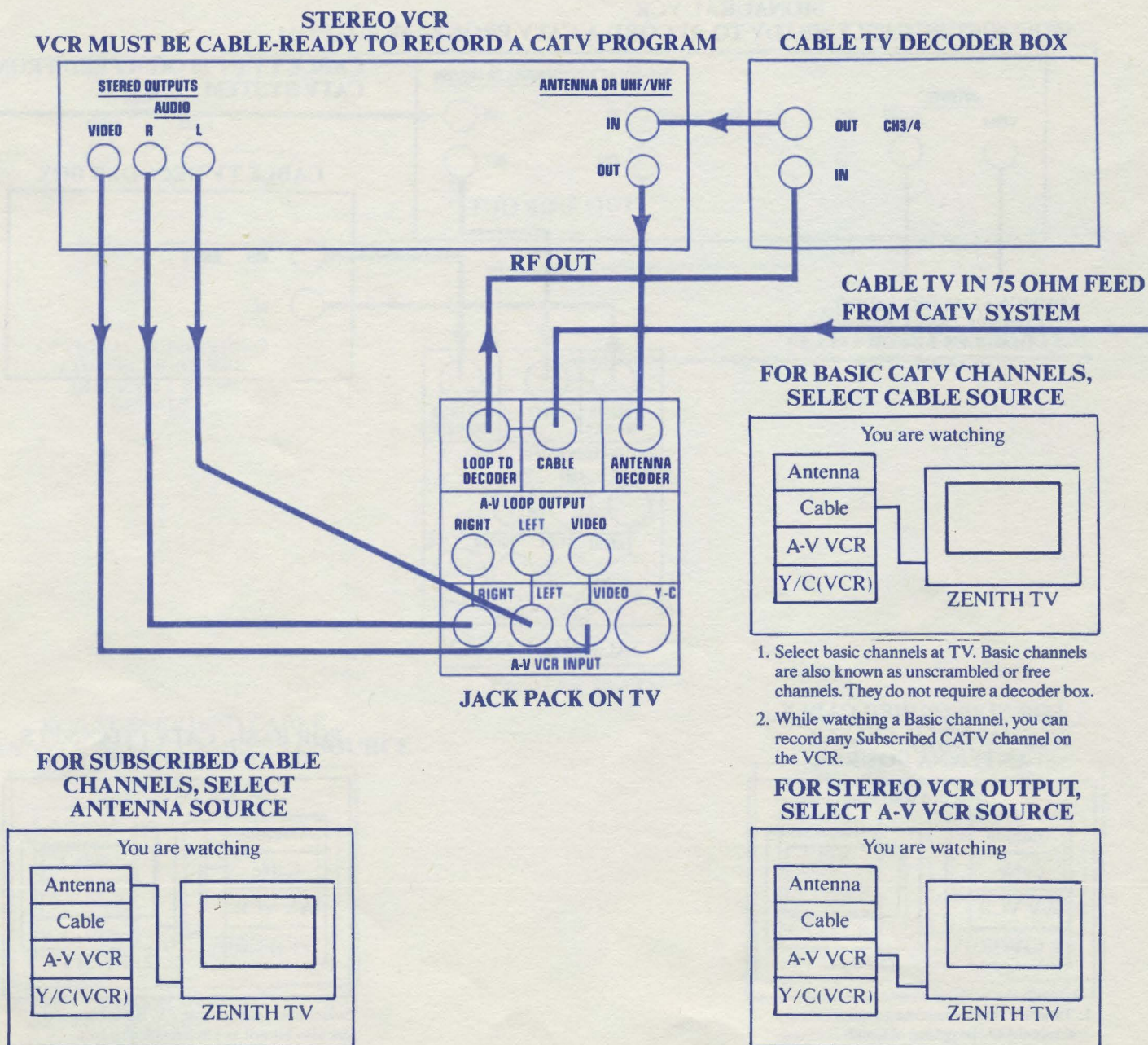
Select basic channels at TV. Basic channels are also known as unscrambled or free channels. They do not require a decoder box.

CONNECTIONS FOR YOUR TV (CONTINUED)

BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

DIAGRAM 12A CABLE TV WITH DECODER BOX AND STEREO VCR (OPTION #1)



1. Select basic channels at TV. Basic channels are also known as unscrambled or free channels. They do not require a decoder box.
2. While watching a Basic channel, you can record any Subscribed CATV channel on the VCR.

1. Tune TV to channel 3 or 4 and select CATV programs at Cable Decoder box.
2. You can use the VCR to play a tape.

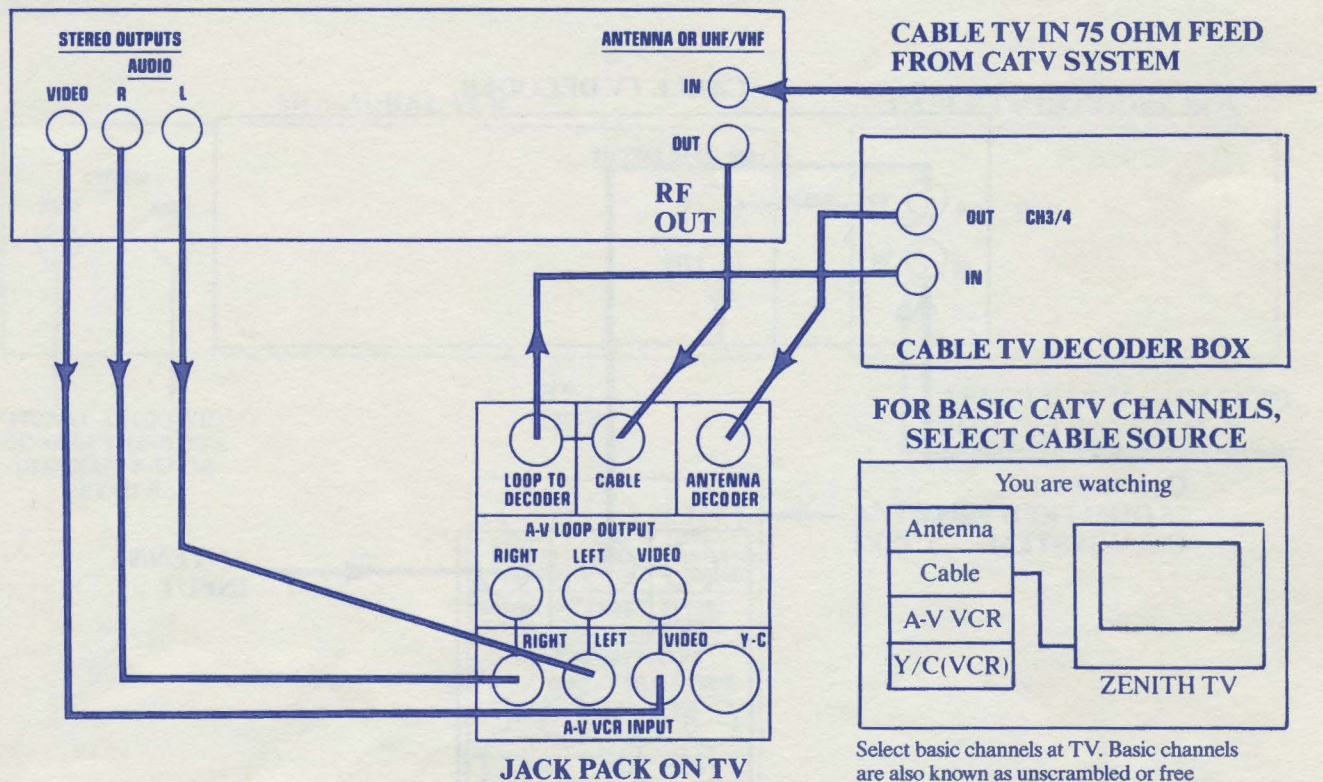
CONNECTIONS FOR YOUR TV (CONTINUED)

BASIC CABLE CONNECTION

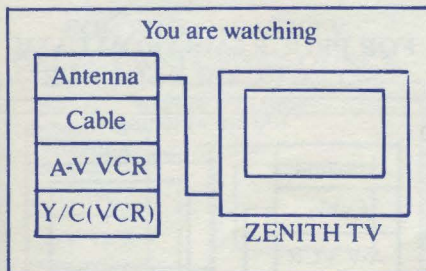
Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

DIAGRAM 12B CABLE TV WITH DECODER BOX AND STEREO VCR (OPTION #2)

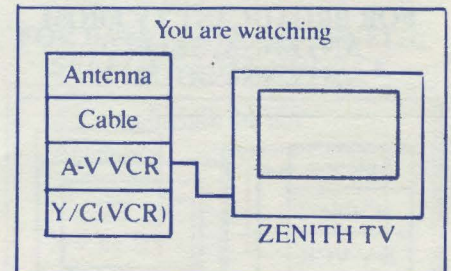
STEREO VCR VCR MUST BE CABLE-READY TO RECORD A CATV PROGRAM



FOR SUBSCRIBED CABLE CHANNELS, SELECT ANTENNA SOURCE



FOR STEREO VCR OUTPUT, SELECT A-V VCR SOURCE



1. Tune TV to channel 3 or 4 and select CATV programs at Cable Decoder box.
2. While watching a Subscribed channel, you can record only Basic CATV channel on the VCR.

CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 13 CABLE TV WITH DECODER BOX AND ANTENNA

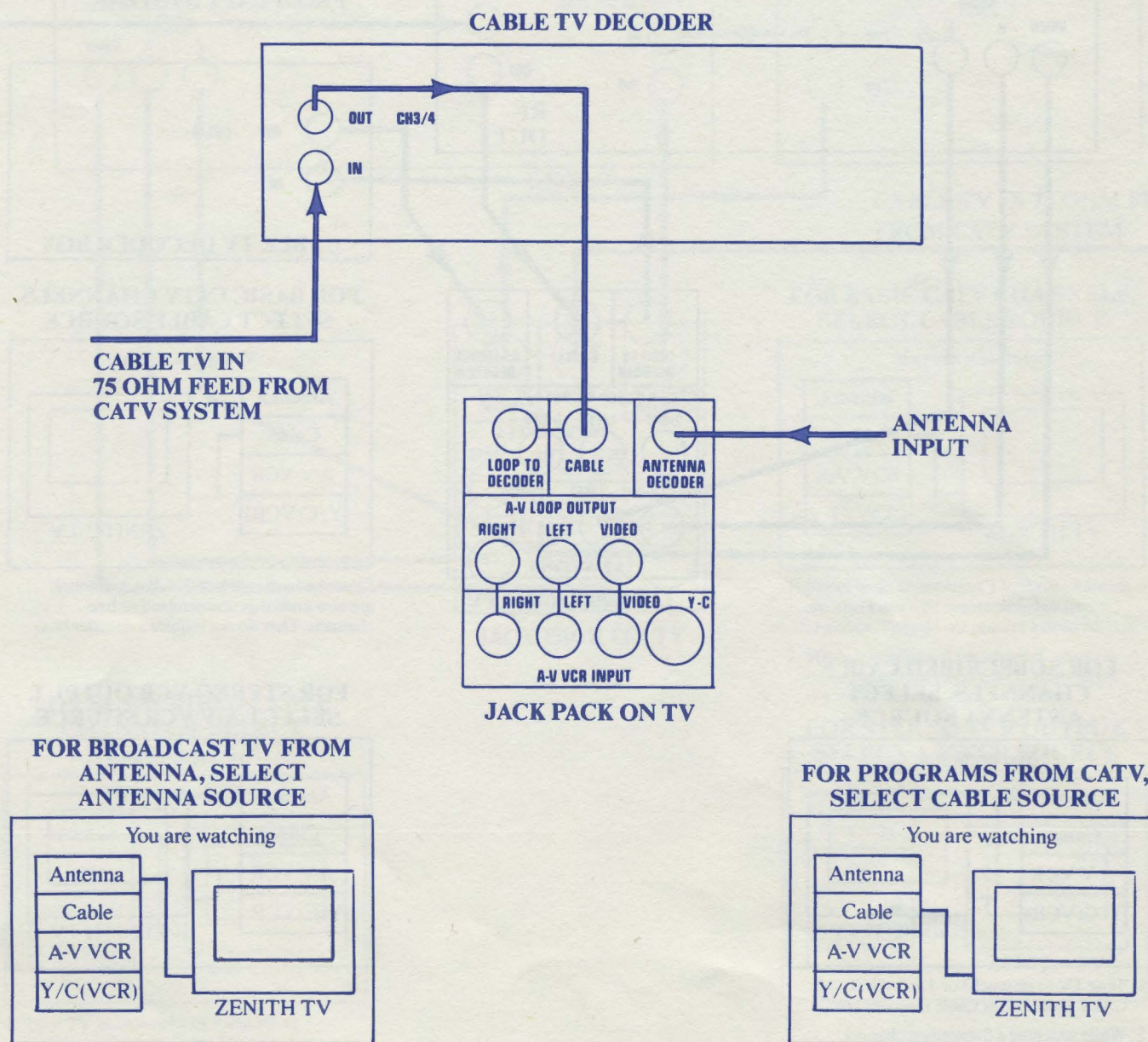
BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



Tune TV to channel 3 or 4. Select Cable channel at Cable box.

CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 14 CABLE TV WITH DECODER BOX, MONAURAL VCR, AND ANTENNA

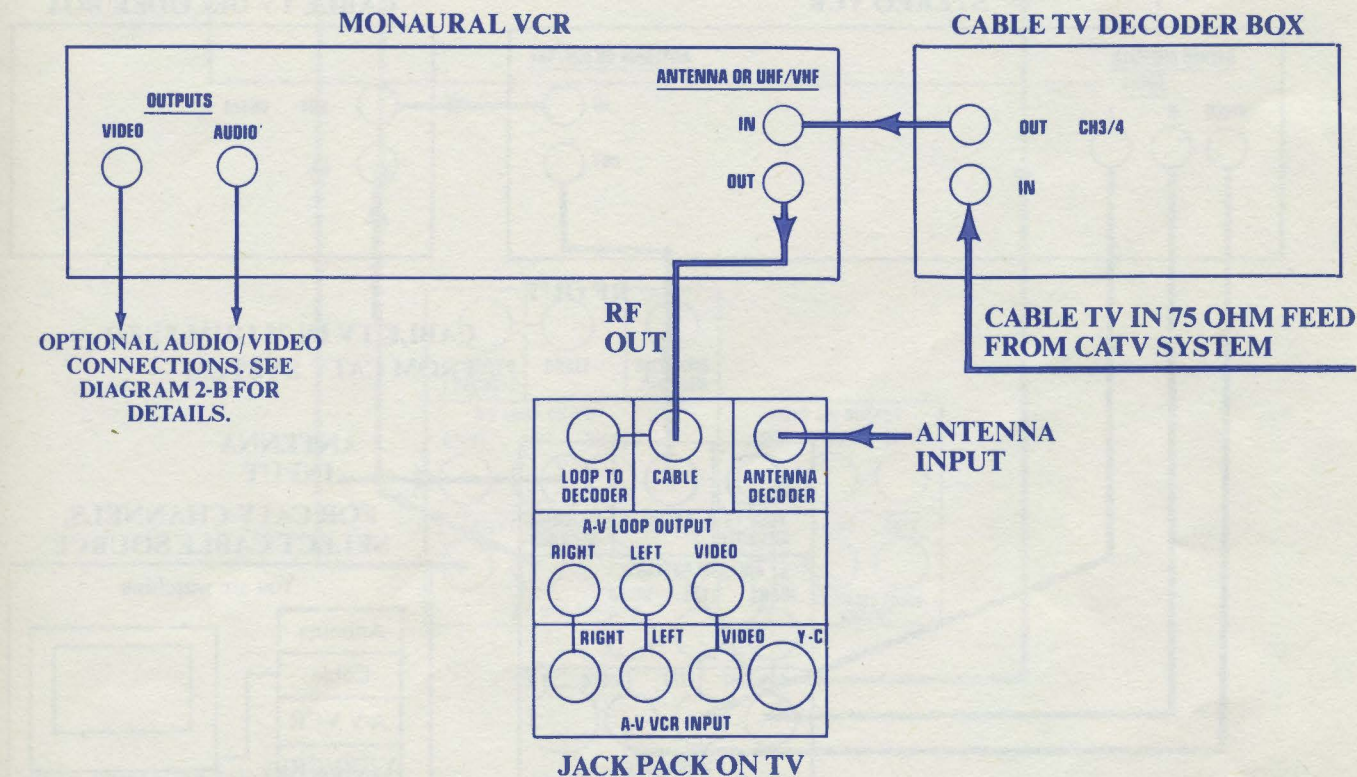
BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

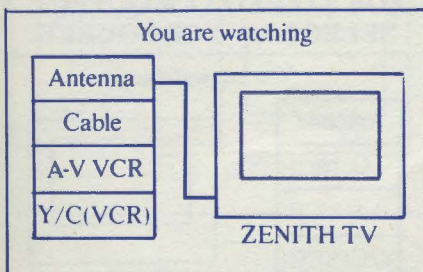
BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

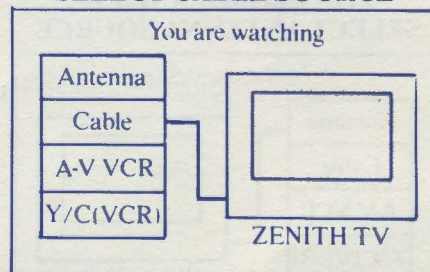
- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



FOR BROADCAST TV, SELECT ANTENNA SOURCE



FOR BASIC CATV CHANNELS, SELECT CABLE SOURCE



Tune TV to channel 3 or 4 and select CATV programs at Cable Decoder box.

CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 15 CABLE TV WITH DECODER BOX, STEREO VCR AND ANTENNA

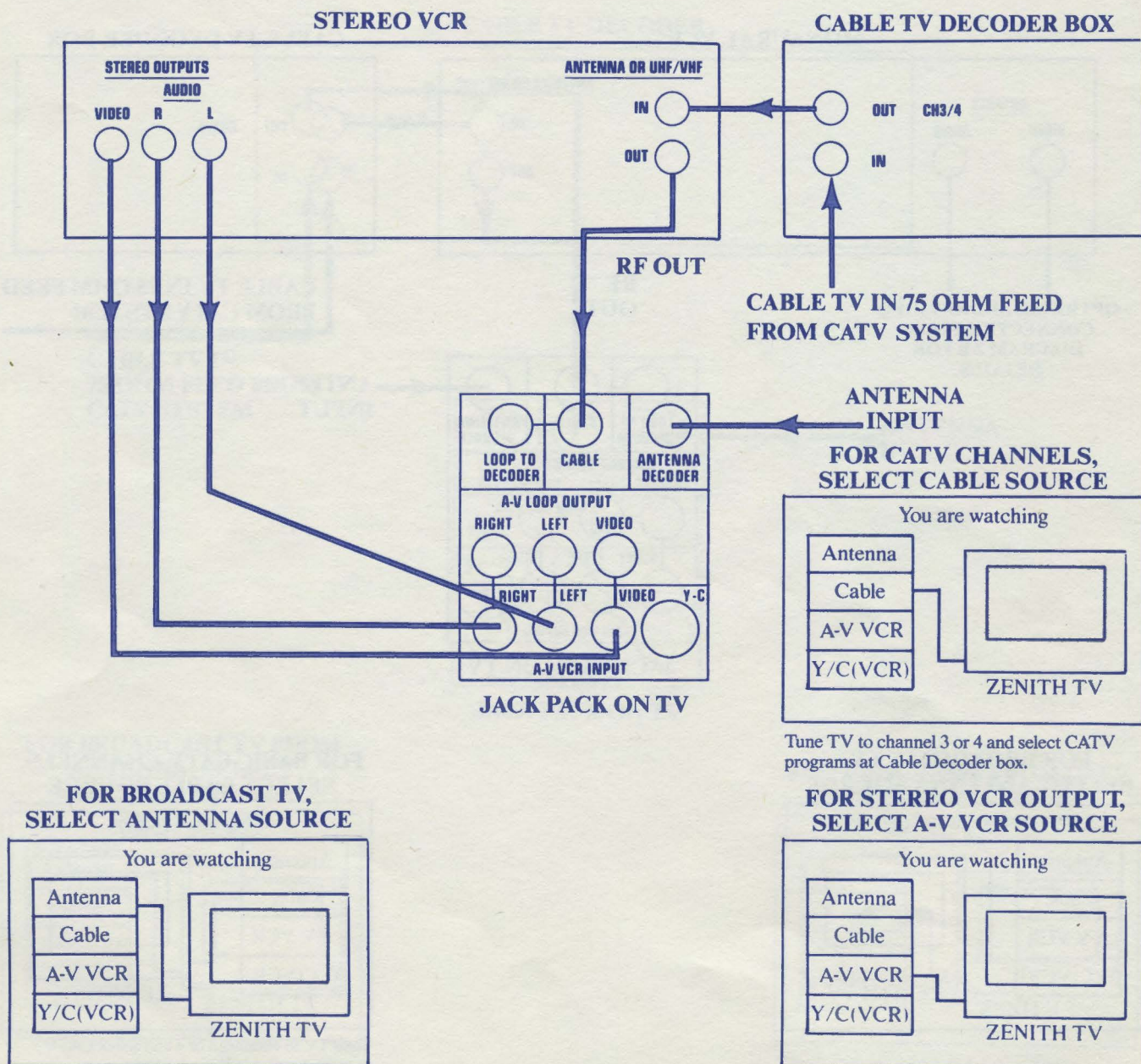
BASIC CABLE CONNECTION

Because Cable-TV Systems vary, we recommend that you check with your Cable Company before connecting a cable line to your TV. This illustration shows one possible way to connect your TV to a Cable TV system. This is not the only possible connection and it may not always work with all cable systems.

BASIC ANTENNA CONNECTION

This is for All-Channel UHF/VHF antenna (including master TV antenna*) with a 75 ohm lead-in.

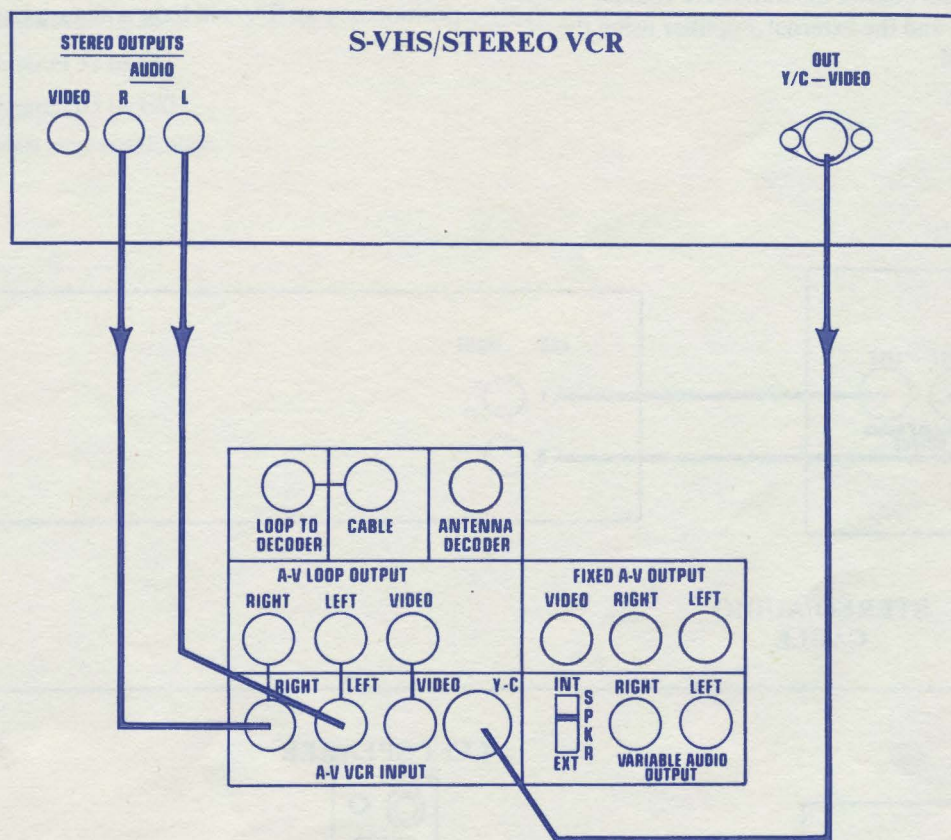
- Master Antenna System—Many apartment buildings are served by a single all-channel (VHF/UHF) antenna system. The signal from this antenna is amplified and distributed to each apartment and terminates in a special wall outlet. Make sure the Master Antenna system has been turned on by your building services people before connecting your TV.



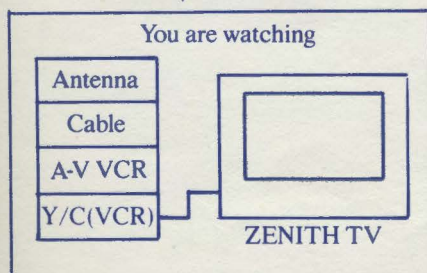
CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 16 CONNECTIONS TO SUPER-VHS (S-VHS) VCR

FOR ANTENNA AND CABLE TV
CONNECTIONS TO YOUR VCR, REFER
TO THE APPLICABLE DIAGRAM IN THIS
SECTION FOR STEREO VCRS.



FOR PROGRAMS FROM THE
S-VHS VCR, SELECT
THE Y/C SOURCE



CONNECTIONS FOR YOUR TV (CONTINUED)

DIAGRAM 17 HOW TO USE THE VARIABLE AUDIO OUTPUT

CONNECTION DIAGRAM "A"

With the **SPEAKERS** switch in the **INT(ERNAL)** position, the Variable Audio Out provides a signal which can be fed into a stereo receiver or external amplifier. For normal TV viewing you will want to keep the switch in the **INT** position.

In this mode, your TV speakers remain "ON." Set your external amplifier or receiver to a moderate volume and leave it there. You can control the Mute and Volume controls for the TV and the external amplifier using the TV's remote control.

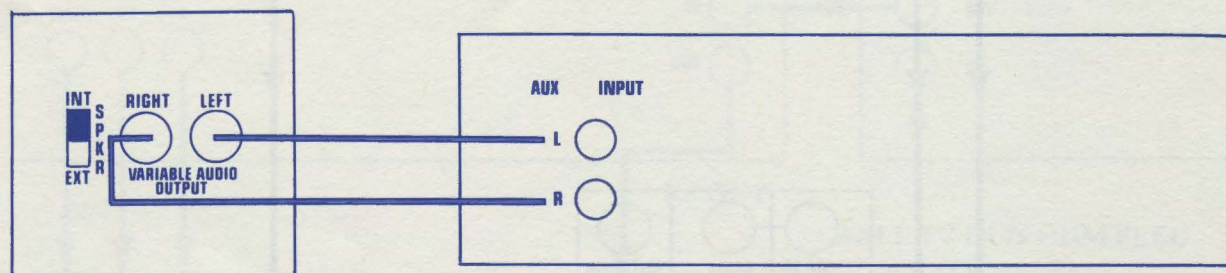
CONNECTION DIAGRAM "B"

With the **SPEAKERS** switch in the **EXT(ERNAL)** position, the **VARIABLE** Audio Out provides a signal which can be used to drive external speakers directly.

In this mode, the TV speakers are turned "OFF."

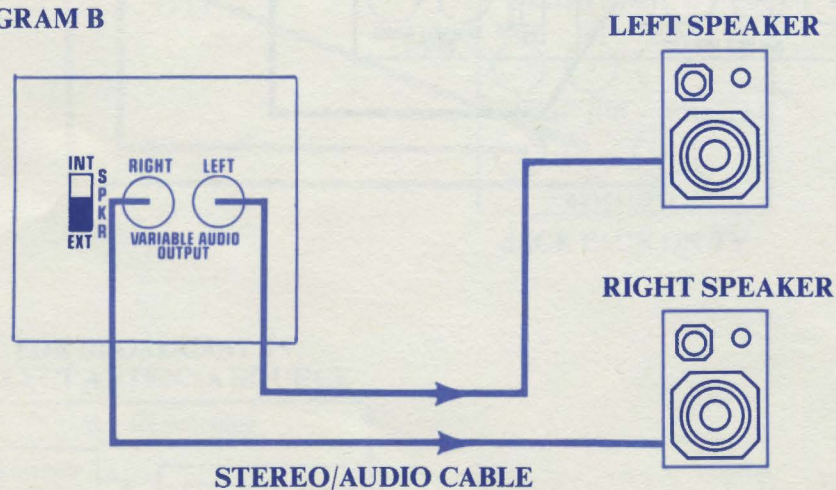
IMPORTANT: If you disconnect the external speakers, be sure to set the **SPEAKERS** switch back to the **INT** position or your TV will have a picture but no sound.

DIAGRAM A



STEREO/AUDIO
CABLE

DIAGRAM B



CABLE TV/VCR OPERATIONAL NOTES

CABLE CHANNELS

Keep the accompanying Cable TV (CATV) Channel Reference Chart handy as a quick reference guide.

The chart shows all the channels your TV can receive. It also shows you the channel number to enter to watch a particular channel. The channels available when the Tuning Band Selector is in the CATV, HRC or ICC position are:

VHF	Channel 2 to 13 including A-8 (+4)
Midband	Channel A-2, A-1, 14 to 22
Superband	Channel 23 to 36
Hyperband	Channel 37 to 64
Ultraband	Channel 65 to 120*

* In U.S., 134 with optional tuner modification.

You can get most channels by entering the channel number directly. Some Cable systems may use letters to represent channels. In that case, to get channels in Midband, Superband, or Hyperband enter the number listed under the letter shown in the chart.

PLEASE NOTE: All channel numbers are "valid" when the tuning band selector is in the CATV, HRC or ICC positions. If you choose a channel on which there is no station broadcasting in your area, the TV will change to that channel, but you will get a blank or "snowy" screen.

CABLE TV/VCR OPERATIONAL NOTES (CONTINUED)

CABLE TV (CATV) CHANNEL REFERENCE CHART

At times, the CATV company will change individual channel allocation. In that case the accompanying chart will not be correct. Follow specifications supplied by your CATV company.

(VHF) Channel	2	3	4	A-8 (4+)	5	6	7	8	9	10	11	12	13	
Select Channel Number	2	3	4	00	5	6	7	8	9	10	11	12	13	
Actual TV Station*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
(Midband) Channel	A-2	A-1	A	B	C	D	E	F	G	H	I			
Select Channel Number	0	1	14	15	16	17	18	19	20	21	22			
Actual TV Station*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
(Superband) Channel	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Select Channel Number	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Actual TV Station*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(Hyperband) Channel	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN
Select Channel Number	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Actual TV Station*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	AAA	BBB
	51	52	53	54	55	56	57	58	59	60	61	62	63	64
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(Ultraband) Channel														
Select Channel Number	65	66	67	68	69	70	71	72	73	74	75	76	77	78
Actual TV Station*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	79	80	81	82	83	84	85	86	87	88	89	90	91	92
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	93	94	95	96	97	98	99	100	101	102	103	104	105	106
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	107	108	109	110	111	112	113	114	115	116	117	118	119	120
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

*Write in the actual station name or channel information supplied by your cable TV company.

CABLE TV/VCR OPERATIONAL NOTES (CONTINUED)

REMOTE CONTROL OF CATV DECODER

Your TV remote control provides full remote control of "basic" or "unscrambled" cable channels within your TV's tuning capability. It may also be able to control the Cable-TV decoder or other equipment supplied by the cable system operator to select "premium" or scrambled channels. However, the remote control user fee charged by some cable companies may still apply. Check with your Cable System operator.

ZENITH REDI-PLUG

Your TV has a Redi-Plug access port on the back of the cabinet. A plastic shield protects the access port. This access port allows installation of a connector for certain cable TV decoders which may be provided by cable system operators using Zenith equipment. If you have a need for the connector, your qualified Zenith service representative can install it at a nominal charge.

BASE-TAC REDI-PLUG

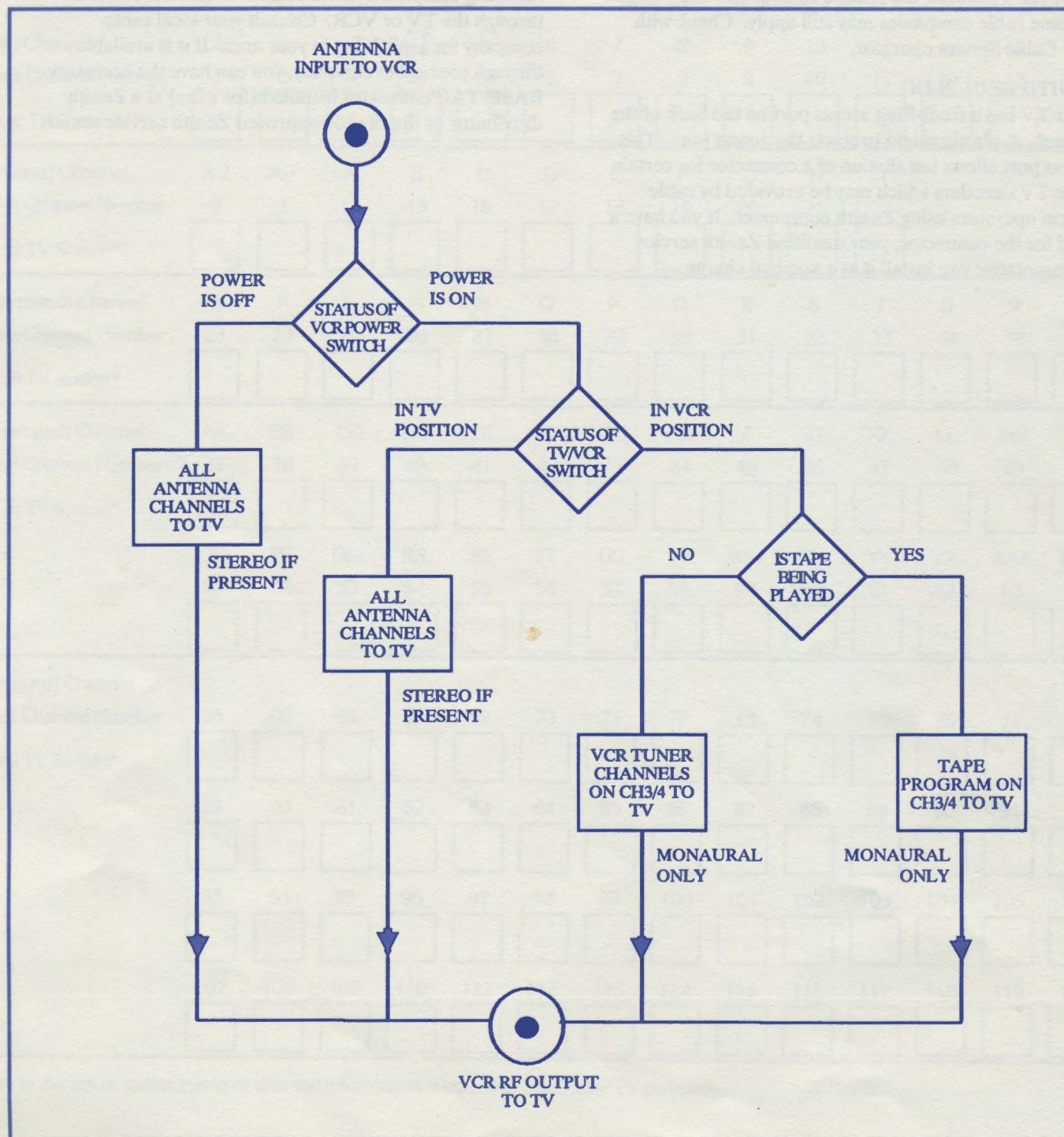
BASE-TAC (TAC—Tiered Addressable Code) is a type of converter/decoder available from cable companies in some areas. When used with a Zenith TV or Zenith VCR which has a BASE-TAC Redi-Plug, it allows you to view premium "unscrambled signal" channels while retaining complete remote control of channel selection through the TV or VCR. Consult your local cable company for availability in your area. If it is available through your cable company, you can have the necessary BASE-TAC connector installed (for a fee) at a Zenith distributor or distributor-approved Zenith service center.

CABLE TV/VCR OPERATIONAL NOTES (CONTINUED)

VCR OPERATIONAL MODES

The operational mode of your VCR determines what type of signal or program you can watch. Use this flow chart to determine the operational status of your VCR so that you can select the proper viewing source and channel on your TV.

NOTE: If you have a stereo VCR, you must use the A-V input jacks on the TV to get stereo sound. See applicable Connection Diagram for details.



MAINTENANCE AND TROUBLESHOOTING

CARING FOR YOUR TV

Your TV will look better, have a longer life and perform better if you care for it properly. Here is how:

Picture Glass Cleaning—The picture tube face attracts dust particles and should be cleaned regularly. To clean the face, first turn the TV off. Spray a small amount of glass cleaner on a cleaning cloth and wipe the picture tube glass face until clean. Repeat if necessary.

To delay new dust accumulation, wet a soft cloth in lukewarm water in which a little fabric softener or dishwashing detergent has been mixed. Wring the cloth almost dry. Wipe the glass face. Make sure no drops of moisture are squeezed onto the glass. Do not wipe the glass dry. Allow the glass to air-dry before you turn the TV on again.

Cleaning the Tinted-Glass Panel—Some TVs have a tinted-glass panel. Clean the glass panel as described above for the Picture Glass Cleaning. After cleaning, check that the glass panel mounting hardware is secure. Each hook-shaped clip and locking wedge must be properly installed to prevent the glass panel from falling out of its mounting.

Cabinet Care—First check to see that the TV is off. To clean:

a. Non-Wood Cabinets or Cabinet Components.

Moisten a soft cloth with a mild soap solution or a dishwashing detergent. Wipe the surface with a damp cloth. Then rinse the cloth in clean water and wipe the surface again. Allow the TV to air-dry before turning it on.

b. Wood Cabinets or Cabinet Components.

Use any good furniture cleaner and polish. Regular care will help preserve the finish.

WHEN ON VACATION

Before going on vacation you may want to unplug the power cord from the electrical wall outlet. This will protect the TV from possible damage from lightning or power lines surges. If you have an outdoor antenna, you may also want to disconnect the antenna lead-in wires on the back of the TV.

NOTE: If you unplug your TV for an extended period of time, all of the TV "memory" features will have to be reset.

TV PICTURE INTERFERENCE

Your TV picture may be affected by interference caused by one or a number of factors. These include:

Nearby Automobile Ignition, Electrical Appliances, etc.—Which cause a speckled, streaked picture. This is most noticeable in weak signal areas.

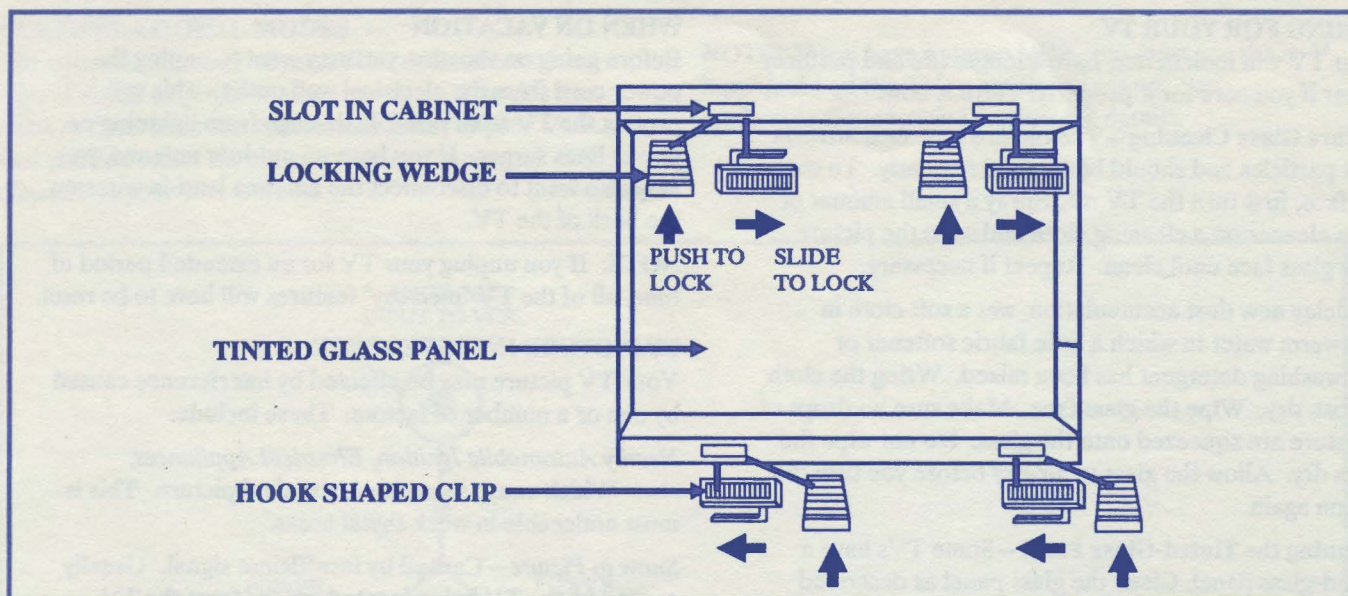
Snow in Picture—Caused by insufficient signal. Usually caused by the TV being located too far from the TV station or by an improper antenna installation.

Ghosts or Reflections—Caused by signals being reflected from surrounding buildings, water tanks, or other high structures.

Radio Signal—Police, amateur or CB radio transmitters may cause interference.

These interference problems can often be corrected through the use of a better antenna, signal amplifiers, or various filter devices. See your Antenna Connection Guide or Zenith dealer.

MAINTENANCE AND TROUBLESHOOTING (CONTINUED)



TINTED-GLASS PANEL REMOVAL AND CARE (Provided on Some Models)

Description

A tinted-glass panel is provided with some TVs. The glass panel enhances the picture contrast under certain viewing (ambient light) conditions.

Before Using the TV

As received from the factory, the glass panel is mounted to the TV. Foam pads are used as shock absorbers to protect the glass panel during shipment. These foam pads must be removed before using the TV.

Removing Glass Panel (or Foam Shipping Pads)

The glass panel should be removed for cleaning, to gain access to the TV picture tube for cleaning, or to remove the foam shipping pads which protect the glass panel. The glass panel is secured to the TV cabinet at four points; two points along the top edge and two points along the bottom edge. See figure for details. Four sets of mounting hardware are used. Each set consists of a hook-shaped clip and a locking wedge.



WARNING: The tinted glass panel is breakable and heavy. Handle it with care.

(Continued on next page...)

MAINTENANCE AND TROUBLESHOOTING (CONTINUED)



WARNING: The tinted glass panel is breakable and heavy. Handle it with care.

Removing Glass Panel (or Foam Shipping Pads)

1. Remove the locking wedges and hook-shaped clips from the top two slots in the cabinet, as follows: Pull each wedge straight out of its mounting. Slide each clip to the left and out of its mounting. Retain parts.
2. Use one hand to apply and keep slight pressure on the face of the glass panel to keep the panel from coming out of its mounting.
3. Remove the foam shipping pads, if present, by gently pulling the foam pad from each corner of the glass panel. Discard the pads. You may have to tilt the panel forward slightly in order to remove the pads. If you can not remove the lower two pads or you want to remove the glass panel, continue with step 4. Otherwise, you can secure the glass panel to the TV by following step 7.b. below.
4. There may be sufficient clearance to remove the glass panel without further disassembly. Grasp the panel along the top edge and gently pull it up and away from its lower mounting. If there is binding or you can not remove the panel, continue with step 5. After the glass panel is removed, put it in a location where it will not fall or get broken. Handle the glass with care because it is heavy.
5. Remove the locking wedges and hook-shaped clips from the bottom two slots in the cabinet, as follows. Pull each wedge straight out of its mounting. Use one hand to apply and keep slight pressure on the face of the glass panel to keep the panel from coming out of its mounting. Slide each clip to the right and out of its mounting. Retain parts.

6. Grasp the glass panel along the top edge and gently pull it up and away from its lower mounting. Put the glass panel in a location where it will not fall or get broken. Handle the glass with care because it is heavy. You may clean the glass panel or the face of the picture tube or both at this time.
7. Secure the glass panel to the TV by using the hardware removed above, as follows:
 - a. If the glass panel was removed from the cabinet:
 1. Install two hook-shaped clips in the bottom slots of the cabinet. You must slide each clip to the left as far as it will go to secure the clip.
 2. Insert glass panel into the lower ledge so that it rests on the two lower clips. Handle glass by its sides to prevent getting fingerprints on the inside surface.
 3. Use one hand to apply and keep slight pressure on the face of the glass panel to keep the panel from coming out of its mounting. Do step 7.b.
 - b. If the glass panel was not removed from the cabinet:
 1. Install two hook-shaped clips in the top two slots of the cabinet. You must slide each clip to the right as far as it will go to secure the clip.
 2. Install locking wedges at each of the hook-shaped clips. Verify that all four locking wedges are properly installed.

Cleaning the Glass Panel

Follow the same cleaning procedure given for cleaning the picture tube face in this section of the Operating Guide.

MAINTENANCE AND TROUBLESHOOTING (CONTINUED)

BEFORE CALLING FOR SERVICE

SYMPTOM	CHECK LIST														
	Check AFC, BAND SELECTOR and SOURCE selector settings	Re-orient antenna	Adjust color controls with COLOR SENTRY control OFF	Is it a color program?	Is TV power switch ON?	Check local interference	Adjust PICTURE control	Adjust BLACK LEVEL Control	Is TV plugged in? Power in outlet?	Is antenna connected?	If outside antenna, check for broken wires.	Try other Channel. If OK, possible station trouble.	Check SOURCE selector position	VCR/TEXT/TV switch in TV position? Battery OK?	Is the AUDIO ONLY feature on?
Picture OK. Sound poor		●				●						●			
Sound OK. Picture poor		●				●	●	●		●	●	●			
No picture or sound	●				●				●	●	●	●		●	
Picture blurred		●									●	●			
Ghosts in picture		●								●	●	●			
Streaks or lines in picture		●				●					●	●			
Weak picture		●					●			●	●	●			
Bars on screen		●				●					●				
Poor color		●	●			●	●	●		●	●	●			
No color		●	●	●						●	●	●			
Picture distorted		●									●	●			
Poor reception, some channels	●	●				●					●	●			
Picture OK, no sound												●	●		
Remote Control does not work					●				●					●	
Sound OK. No picture												●	●		●

Always request that your technician use only genuine Zenith exact replacement parts for continued Quality and Safety performance.

Keep your Zenith ALL Zenith.

Symptom	Check List
Poor signal reception or no signal reception...	Is the Tuning Band Selector in the correct position for the type of signal you are receiving?
TV "Memory" features, like Time display, return to "0:00" when you turn the TV back on...	Is your TV plugged into the Switched AC outlet on a Cable TV decoder or VCR? Always be sure to plug your TV into a wall outlet to which power is constantly supplied.
TV ignores attempts to tune certain channels...	Are you selecting a "valid" channel for your current band? Is the Parental Control activated?
You do not get picture or sound when you select the VCR1, AUX sourced from the TV Sources Menu...	Is the VCR hooked-up correctly? Do you have both audio and video cables connected to the VCR/AUX jacks on the TV auxiliary jack panel?

MAINTENANCE AND TROUBLESHOOTING (CONTINUED)

REGISTRATION CARD LOST OR MISPLACED?

The Owner Registration Card furnished with your Zenith Color TV is pre-printed with the Model and Serial numbers of your new TV. Please fill out the card and mail it at your earliest convenience. It is imperative that Zenith know how to reach you promptly if we discover a safety problem that would affect you. If the pre-printed card has been lost or misplaced, you may use the card printed in this Operating Guide. Either card will qualify you for the free TV drawing, but you are limited to only one entry in the drawing. Complete the card, place it in an envelope and mail it to:

Zenith Electronics Corporation
P.O. Box 17969
Denver, CO 80217-0969

Free TV drawing offer is void in Canada and other countries where restricted or prohibited by law. The odds of winning depend upon the number of participants.

Use this substitute Owner's Registration Card only if the original pre-printed Owner's Registration Card has been misplaced or lost.

(CUT ALONG DASHED LINE)

Zenith Owner Registration Card

86H

Please Print Clearly or Type

1. ☐ Mr. 2. ☐ Mrs. 3. ☐ Ms. 4. ☐ Miss Area Code Telephone

First Name Initial Last Name

Street Apt. No.

City Date of Purchase

State Zip Mo. Day Yr.

Dealer/Store Name

Dealer/Store Street Address

City

State Zip Code

Please record the model number and serial number from the sticker on the back of the TV

MODEL

Copy Numbers Here
From Label On Set

SERIAL

YOUR ZENITH WARRANTY

Consumer Protection Plan for Zenith Color Television

Welcome into the Zenith family! We believe that you will be pleased with your new Zenith Color TV. Please read this Consumer Protection Plan carefully. It is a "LIMITED WARRANTY" as defined by Federal Law. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.A.

Zenith's Responsibility

Service Labor—For a period of 90 days from effective warranty date Zenith will pay for service labor by a U.S., or Canadian, distributor-approved Zenith service center when needed as a result of manufacturing defects.

Parts—New or remanufactured replacements for factory-defective parts will be supplied for one year from effective warranty date (color picture tube—two years). Replacement parts are warranted for the remaining portion of the original warranty period.

Home Service—Warranty service for 19" diagonal (U.S.A.) or larger screen size models is provided in the home.

Not Covered—Installation, adjustment of customer controls in the home and installation or repair of home antenna systems, cable converters or cable company-supplied equipment are not covered by this warranty; nor is damage due to misuse, abuse or negligence. Any alteration of the product after manufacture voids this warranty in its entirety.

Owner's Responsibility

Effective Warranty Date—Warranty begins on the date of original consumer installation. For your convenience, keep the dealers dated bill of sale or delivery ticket as evidence of the purchase date.

Operating Guide—Read your Operating Guide carefully so that you will understand the operation of your set and how to adjust the customer controls.

Carry-In Service—Models with 19" diagonal (U.S.A.) or smaller screen size must be taken to a distributor-approved Zenith service center for warranty service and must be picked up by the owner.

Antenna—Reception problems caused by inadequate home antennas or faulty antenna connections are the owner's responsibility.

Important: Owner Registration—Please fill out and mail your Owner Registration Card. It is imperative that Zenith know how to reach you promptly if we should discover a safety problem that could affect you.

Warranty Service—For warranty service information, contact your Zenith dealer preferably, or any distributor-approved Zenith service center. Parts and service labor that are Zenith's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, write or call Customer Service, Zenith Electronics Corporation, 11000 Seymour Avenue, Franklin Park, IL 60131 (312) 671-7550.

NOTE: *Before you ask for Warranty service, check the Operating Guide section entitled, "BEFORE CALLING FOR SERVICE." It may be possible to avoid a service call.*

ZENITH ELECTRONICS CORPORATION
1000 N. MILWAUKEE AVENUE
GLENVIEW, ILLINOIS 60025

Part No. 206-1846-01
Printed in U.S.A.
EP-EDCBAO

OPERATING GUIDE ADDENDUM

APPLICABLE OPERATING GUIDE

This Addendum applies to the following Operating Guide:

Advanced System3 Color TV
Part Number 206-1846-01 Issue 0

PURPOSE

This Addendum provides revised information for some of the features and options described in the Operating Guide provided with your TV. Use the new pages provided with this Addendum instead of the corresponding pages in your Operating Guide.

REPLACEMENT PAGES

The following replacement pages are provided:

Page Description

4-3	Sharpness feature
6-2	Parental Control feature
6-3	Color Sentry feature and Video Filter option
7-2	Time Set feature
7-4	AFC Mode option

VIDEO MENU (CONTINUED)

SHARPNESS

Adjusts the sharpness of the picture.

When making picture adjustments, use a video input source that you know provides a good color picture. Let the TV operate for a few minutes to stabilize the picture before changing any adjustment.

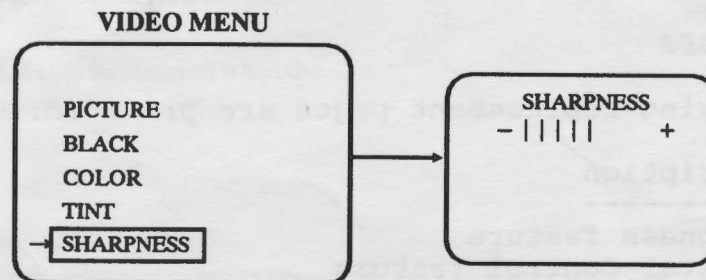
To Adjust the SHARPNESS:

1. Press MENU until the VIDEO Menu is displayed.
2. Press SELECT until the SHARPNESS option is highlighted.
3. Press ADJUST to get the SHARPNESS status display.
4. If the picture is too "soft" and vertical edges are fuzzy, press ADJUST Right to increase the sharpness.

If the picture is too "grainy" and vertical lines show multiple lines on the right side, press ADJUST Left to obtain the desired sharpness.

5. Press SELECT for the next menu option, MENU for the next menu, or ENTER to return to normal TV viewing.

Your adjustment will be remembered unless you use the RESET option of the FEATURES Menu. In this case, the original factory adjustment will be restored. The original factory adjustment will also be restored if the TV does not receive power for approximately one minute.



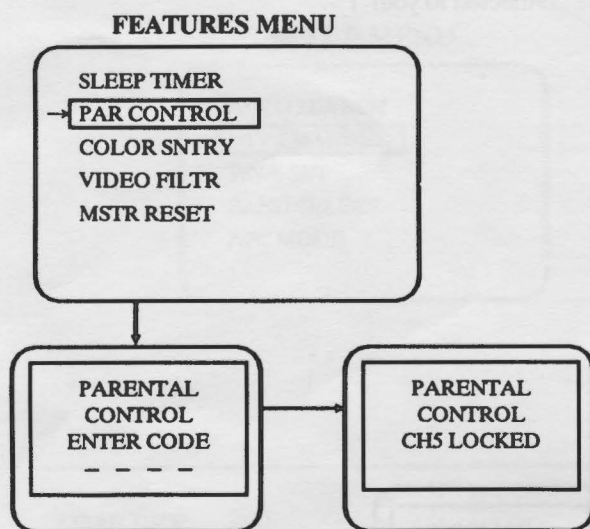
FEATURES MENU (CONTINUED)

PAR (Parental) CONTROL

If there is a channel that you do not want your children to watch, you can "lock it out" for up to 12 hours by entering your own (secret) 4-digit code. The locked out channel can be any channel accessed through the ANTENNA or CABLE sources.

NOTE: Parental Control can be used to lock out only one channel. Before Parental Control can be activated, the ANTENNA or CABLE source must first be selected. See the SOURCES Menu for details.

Once you have locked out a channel, the TV will not be able to tune it for the next 12 hours unless you deactivate Parental Control.



Activating Parental Control:

1. Turn TV to the channel to be locked out.
2. Press MENU until the FEATURES Menu is displayed.
3. Press SELECT until the PAR CNTRL option is highlighted.
4. Press ADJUST to get the PAR CONTROL status display.
5. Enter a 4-digit code using the numbered buttons on the remote control. The numbers you enter will replace the dashes in the display. Pick a number that is easy to remember (or write it down) in case you want to reactivate the channel within 12 hours.
6. Press ADJUST to activate Parental Control.
7. You must change to another channel, or turn off the TV if desired. For the next 12 hours, whenever anyone tries to select the locked-out channel, the TV will ignore the selection.

Deactivating Parental Control:

A channel that has been locked out can be made accessible again by following the below steps:

1. Use the MENU and SELECT buttons to display the PAR CNTRL Menu.
2. Use the Numbered Buttons to enter the 4-digit code used to lock out the channel, then press ADJUST.
3. If you have entered the code used to lock the channel out, the Channel/Time display will replace the Parental Control/Menu. You can now tune in the channel that had been locked out.

FEATURES MENU (CONTINUED)

COLOR SNTRY (Sentry)

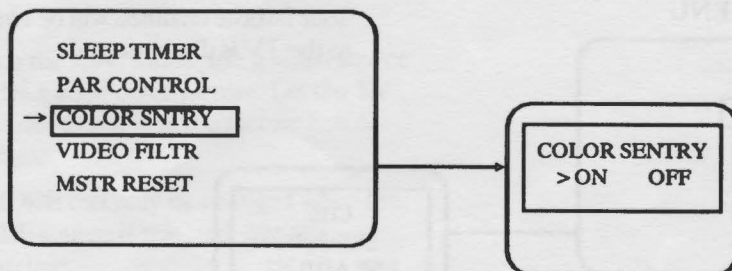
Video COLOR SNTRY allows you to switch to the factory settings for the COLOR and TINT picture characteristics.

The COLOR SNTRY feature produces an excellent TV picture. Still, there may be times (like when watching lesser quality VCR tapes) when you want more control over the picture. In that case, switch the COLOR SNTRY to off. With Color Preset off, you can adjust two additional controls, COLOR and picture TINT.

To Operate Color Sentry:

1. Press MENU until the Features menu is displayed.
2. Press SELECT until the COLOR SNTRY option is highlighted.
3. Press ADJUST to get the COLOR SENTRY status display.
4. To turn COLOR SENTRY ON, press ADJUST until the display shows ON.
To turn COLOR SENTRY OFF, press ADJUST until the display shows OFF.
5. Press SELECT for the next menu option, MENU for the next menu page, or ENTER to return to normal TV viewing.

FEATURES MENU



VIDEO FILTR (Filter)

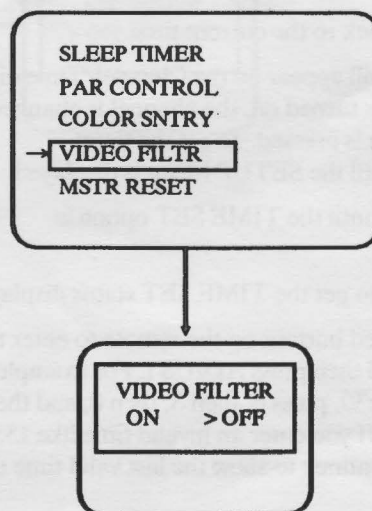
The VIDEO FILTR reduces video "noise" or interference in dark picture areas while retaining detail and sharpness in bright areas.

To Operate the VIDEO FILTR:

1. Press MENU until the FEATURES Menu is displayed.
2. Press SELECT until the VIDEO FILTR option is highlighted.
3. Press ADJUST to get the VIDEO FILTER status display.
4. To turn the VIDEO FILTER off, press ADJUST until the word "OFF" is highlighted in the display.
To turn the VIDEO FILTER on, press ADJUST until the word "ON" is highlighted in the display.
5. Press SELECT for the next menu option, MENU for the next menu, or ENTER to return to normal TV viewing.

NOTE: You may prefer to have the VIDEO FILTER switched OFF for better sharpness.

FEATURES MENU



SETUP MENU (CONTINUED)

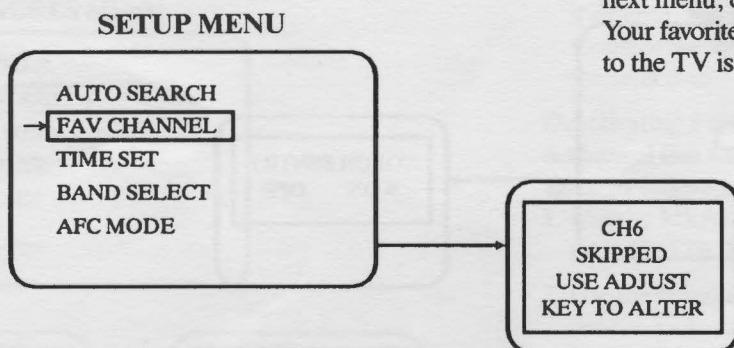
NOTE: Favorite Channel will only operate when the ANTENNA or CABLE source is selected. See the SOURCE Menu for details.

To operate the Favorite Channel feature:

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the FAV. CHANNEL option is highlighted.
3. Press ADJUST to get the FAV CHANNEL status display.
4. Choose a channel by using the numbered buttons on the remote or the CH Up or Down control. The channel number will appear on the menu display.

NOTE: Check the setting of the BAND SELECT if you have difficulty tuning some channels (See BAND SELECT on the SETUP Menu). If you have the correct BAND selection but are still having difficulty finding a channel you know to be active, set the AFC MODE to ON. See AFC MODE on the SETUP Menu.

5. To save the displayed channel, use the ADJUST button to highlight SAVE. Repeat steps 3 and 4 for each channel you wish to save.
6. To delete the displayed channel from the scan list use the ADJUST control to highlight SKIP. Repeat steps 3 and 5 for each channel you wish to skip over when operating the CH Up/Down control.
7. Press SELECT for the next menu option, MENU for the next menu, or ENTER to return to normal TV viewing. Your favorite channels will be remembered even if power to the TV is disconnected.



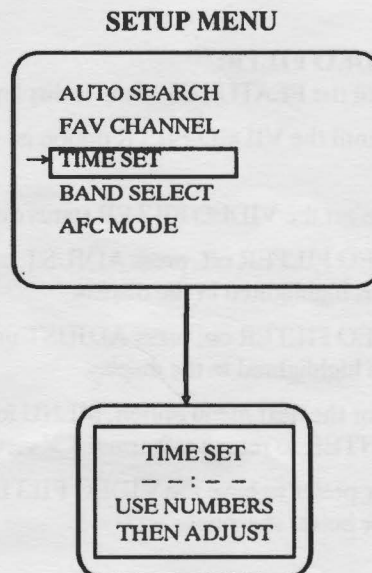
TIME SET

Sets the built-in clock to the current time.

The current time will appear on the Channel/Time display whenever the TV is turned on, the channel is changed or the ENTER button is pressed. To set the time:

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the TIME SET option is highlighted.
3. Press ADJUST to get the TIME SET status display.
4. Use the numbered buttons on the remote to enter the current time and then press ADJUST. For example, to set the time to 6:30, press 6, then 3, then 0, and then press ADJUST. If you enter an invalid time like 13:45, the clock will continue to show the last valid time that was set.

If you enter a wrong number, you can re-enter the correct time by pressing the numbered buttons again.
5. To start the clock, press ENTER. The TIME SET display will be replaced by the Channel/Time display.



SETUP MENU (CONTINUED)

AFC MODE

The AFC (Automatic Frequency Control) circuit lets your TV compensate for variations in broadcast frequencies. The AFC has two basic functions:

- it tunes to the exact broadcast signal.
- once tuned to the broadcast signal, it "locks" onto it and, if need be, follows the signal should it drift.

The AFC MODE contains two options, ON and OFF. Use the OFF Mode to receive over-the-air TV stations. You can also use the OFF Mode with many Cable-TV (CATV) channels.

Broadcast signals from TV stations operate on fixed and highly stable frequencies. The OFF mode is used for fixed frequency signals, while the ON mode searches for offset frequency signals which may be present in certain CATV systems.

NOTE: Before setting the AFC Mode, use a video source that you know provides a good color picture. Let the TV operate for a few minutes to stabilize the picture before changing any adjustment.

NOTE: The AFC MODE can only be changed when the ANTENNA or CABLE source is selected. See the SOURCE Menu for details.

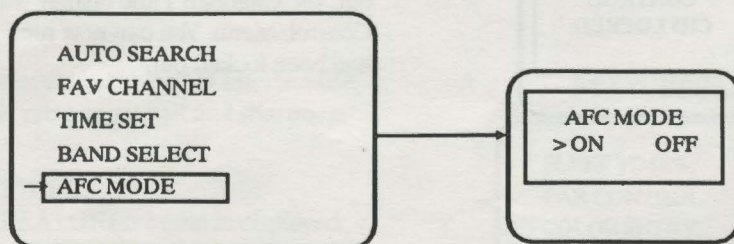
To Use AFC:

The AFC can be set for a particular band by following the below directions.

1. Press MENU until the SETUP Menu is displayed.
2. Press SELECT until the AFC MODE option is highlighted.
3. Press ADJUST to get the AFC MODE status display.
4. Use the ADJUST control to select the desired AFC mode.
5. Press SELECT for the next menu option, MENU for the next menu, or ENTER to return to normal TV viewing.

NOTE: The AFC MODE can be different for each source connected to your TV.

SETUP MENU



IMPORTANT!!!
IMPORTANT!!!



**OWNER
REGISTRATION
CARD**

**THIS ZENITH
COLOR TELEVISION RECEIVER
YOU JUST PURCHASED
MAY BE YOURS**

FREE

(see details inside)



**The Quality Goes In Before
The Name Goes On.®**

DO NOT REMOVE	
MODEL	REG. CARD SF2033Y2
SERIAL	
922-14440036	

Dear Zenith Owner:

It is our pleasure to welcome you into the family of satisfied Zenith customers. Over a period of many years, Zenith products have earned a reputation for quality and dependability, and it is our desire to maintain this reputation with you.

Please read your "OPERATING GUIDE" carefully so that you will understand the operation of your new Zenith and how to adjust the controls.

Also read "YOUR ZENITH WARRANTY—Consumer Protection Plan." The service and parts which your warranty provides will be supplied by a distributor-approved Zenith service center without charge to you.

PLEASE FILL OUT AND MAIL THE ATTACHED SELF-ADDRESSED OWNER REGISTRATION CARD. IT IS IMPERATIVE THAT ZENITH KNOW HOW TO REACH YOU PROMPTLY IF WE SHOULD DISCOVER A SAFETY PROBLEM THAT WOULD AFFECT YOU.

If at any time this product does not live up to your expectations, and your dealer or distributor-approved Zenith Service Center is unable to make a satisfactory adjustment, please write directly to us. Please include the Model Number and Serial Number in any correspondence. We want the opportunity to give your problem personal attention.

Customer Service
Zenith Electronics Corporation
11000 Seymour Avenue
Franklin Park, Illinois 60131

IMPORTANT!!!

Here is how you may receive your new
Zenith COLOR TV

FREE

Each month a drawing will be held by Zenith from the completed Owner's Registration cards received during the preceding month. Zenith will reimburse the winner for the full purchase price of the Color TV receiver. In order to participate, simply complete and return the owner's registration card at once, even if you choose not to complete the information and interests questionnaire.

Offer void in Canada and other countries where restricted or prohibited by law. The odds of winning depend upon the number of participants. This offer expires December 31, 1989.

Tear at perforation

4 Which of the following do you currently have?**A. (CHECK (✓) ALL THAT APPLY)**

1. ☐ Color TV (additional)
2. ☐ B/W TV
3. ☐ Video Cassette Recorder
4. ☐ Large Screen Projection TV
5. ☐ Home Computer
6. ☐ 35mm Still Camera
7. ☐ Satellite Dish
8. ☐ Movie Camera
9. ☐ Cable/Subscription TV Service

B. Which type is it? (CHECK (✓) ONE)

1. ☐ Portable
2. ☐ Portable
3. ☐ 8mm Film
4. ☐ Console
5. ☐ Table Model
6. ☐ Video Tape

C. Is it a Zenith?

1. ☐ Yes
2. ☐ Yes
3. ☐ Yes
4. ☐ Yes
5. ☐ Yes
6. ☐ Yes
7. ☐ Yes
8. ☐ No
9. ☐ No
10. ☐ No
11. ☐ No
12. ☐ No
13. ☐ No
14. ☐ No

5 What was your main reason for buying a Zenith color television? (CHECK (✓) ONLY 1)

1. ☐ Price
2. ☐ Manufacturer's reputation
3. ☐ Features
4. ☐ Styling
5. ☐ Friend's recommendation
6. ☐ Advertising
7. ☐ Availability
8. ☐ Previous ownership of brand
9. ☐ Picture quality
10. ☐ Other

6 Where do you remember seeing or hearing advertising for the Zenith TV that you just bought?**(CHECK (✓) AS MANY AS APPLY)**

1. ☐ In a magazine
2. ☐ On the radio
3. ☐ In a catalog
4. ☐ On the television
5. ☐ In the newspaper
6. ☐ In a store circular/flyer
7. ☐ Advertisement in the store
8. ☐ Other _____
9. ☐ None
10. ☐ Can't remember

7 How much influence did the advertising you saw or heard have on your purchase decision?**(CHECK (✓) ONLY 1)**

1. ☐ A great deal of influence
2. ☐ Some influence
3. ☐ No influence at all

8 Date of birth: Month Year 1 9 **9 Marital Status:** 1. ☐ Married 2. ☐ Divorced/Separated 3. ☐ Widowed 4. ☐ Single/Never Married**10 Occupation:**

	You	Your Spouse		You	Your Spouse
Homemaker	1. <input type="checkbox"/>	1. <input type="checkbox"/>	Clerical	6. <input type="checkbox"/>	6. <input type="checkbox"/>
Professional/Technical	2. <input type="checkbox"/>	2. <input type="checkbox"/>	Craftworker	7. <input type="checkbox"/>	7. <input type="checkbox"/>
Executive/Administrator	3. <input type="checkbox"/>	3. <input type="checkbox"/>	Machine Oper./Laborer	8. <input type="checkbox"/>	8. <input type="checkbox"/>
Middle Management	4. <input type="checkbox"/>	4. <input type="checkbox"/>	Service Worker	9. <input type="checkbox"/>	9. <input type="checkbox"/>
Sales/Marketing	5. <input type="checkbox"/>	5. <input type="checkbox"/>	Retired	10. <input type="checkbox"/>	10. <input type="checkbox"/>
			Student	11. <input type="checkbox"/>	11. <input type="checkbox"/>

11 What are the ages of all children living at home?

- | | | | |
|----------------------------------|---------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> 4 yrs. | <input type="checkbox"/> 9 yrs. | <input type="checkbox"/> 14 yrs. |
| <input type="checkbox"/> Under 1 | <input type="checkbox"/> 5 yrs. | <input type="checkbox"/> 10 yrs. | <input type="checkbox"/> 15 yrs. |
| <input type="checkbox"/> 1 yr. | <input type="checkbox"/> 6 yrs. | <input type="checkbox"/> 11 yrs. | <input type="checkbox"/> 16 yrs. |
| <input type="checkbox"/> 2 yrs. | <input type="checkbox"/> 7 yrs. | <input type="checkbox"/> 12 yrs. | <input type="checkbox"/> 17 yrs. |
| <input type="checkbox"/> 3 yrs. | <input type="checkbox"/> 8 yrs. | <input type="checkbox"/> 13 yrs. | <input type="checkbox"/> 18 yrs. |

12 Which group describes your family income:

- | | | | |
|---|---|---|--|
| 1. <input type="checkbox"/> Under \$14,999 | 4. <input type="checkbox"/> \$25,000-\$29,999 | 7. <input type="checkbox"/> \$40,000-\$44,999 | 10. <input type="checkbox"/> \$60,000-\$74,999 |
| 2. <input type="checkbox"/> \$15,000-\$19,999 | 5. <input type="checkbox"/> \$30,000-\$34,999 | 8. <input type="checkbox"/> \$45,000-\$49,999 | 11. <input type="checkbox"/> \$75,000-\$99,999 |
| 3. <input type="checkbox"/> \$20,000-\$24,999 | 6. <input type="checkbox"/> \$35,000-\$39,999 | 9. <input type="checkbox"/> \$50,000-\$59,999 | 12. <input type="checkbox"/> \$100,000 & over |

Moisten to seal